THE JOURNAL

OF THE

OKLAHOMA STATE MEDICAL ASSOCIATION

VOLUME XXV MUSKOGEE, OKLAHOMA, JUNE, 1932. NUMBER 6

THE DUTY OF THE PHYSICIAN TO HIS PROFESSION*

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Mr. Chairman, Members of the Association, Ladies and Gentlemen:

I sincerely and deeply appreciate the honor you gave me one year ago when you elected me your President. In accepting this honor, I am fully aware of the great responsibility which attends this office, and am going to do my best to hold the confidence you have shown by placing me at your head.

In planning what message to bring to you as your President, I became conscious of the debt that we, as physicians, owe our profession; and with that thought in mind, I could not get away from this title: "The Duty of the Physician to His Profession."

When the student in high school or college realizes that he must make a decision between a business or professional life, he must consider carefully the work for which he is best fitted. If he decides in favor of the medical profession, he should do so with the desire to give the best of his attention to his medical instructions. When a young man chooses a profession second only to the ministry of Christ, it is supposed that he will be so sincere that he will give his best efforts to that profession.

The improved methods of teaching medicine today, are so far in advance of those given by all medical schools of twenty or thirty years ago, that the young man entering this profession has a better opportunity of obtaining a more suitable foundation for any special line of work he may choose. I believe he should be very careful in his work that he may get a thorough knowledge of all the fundamental branches, and while he may decide rather early to specialize, he should not neglect the other fields in the course of training. It is my opinion that if the teachers will impress these ideas upon their pupils there will not be so many so-called "specialists" who are not fitted to do justice to any special line of work. I well remember the advice Dr. G. C. Savage, our Professor of Ophthalmology at Vanderbilt gave us when we were students there. He said: "You should not think of specializing until you have practiced general medicine for ten years." I am not commenting on the time one should take for a decision, but rather leaving this with you for what it is worth.

As an interne there are many things to keep in mind. In a charity hospital there is danger of losing that finer sense of responsibility which may stand one in hand in a private practice, so one must guard himself, remembering that there is more to consider than just returning a patient to a normal physical condition. There is a great tendency among our internes to be hyper-critical of their attending men, unless the interne has a special liking for one of his teachers; and then it is only natural that he be blind to his ideal's mistakes. It would be well if our students could be taught that anything but constructive criticism of their fellow students and attending men is detrimental to the welfare of the profession in general. Due to the great cost of medical education, many of our young doctors find themselves badly in debt on leaving their interneship, and there is a great temptation for them to enter into an unethical practice in order to gain an immediate greater financial remuneration. Even more unfortunate is the case in which a young doctor is hastened into this unethical practice by the attitude and actions of his older fellow physicians.

Loyalty to the traditions of medicine is the first duty of every physician because those traditions represent the best thought of an earnest and mighty profession. They have come to us through the precepts and examples of our predecessors over a period

*President's Address, Fortieth Annual Session Oklahoma State Medical Association, Tulsa, May 25, 1932.

of twenty-four centuries. They did not come to us from cults or sects because those who bequeathed them were neither cultists nor sectarians—they were simply members of the regular medical profession. We do not receive them as members of a cult or sect, because we, like our forefathers in medicine, are neither cultists nor sectarians—we are not even allopaths, that name being gratuitously bestowed upon us by a group of sectarians—we are simply members of the regular medical profession.

Now, what does this mean? It means that medicine is progressive. It means the difference between the untrammeled exercise of the human mind, on our part, against the circumscribed mental activity of those who are controlled by arbitrary, fixed, and often foolish dogmas. The physician should be loyal to his profession because it is progressive. It is realized too little that the legitimate activities of regular medicine have no metes and bounds except the metes and bounds of demonstrable truth. We are not hedged about by philosophical hypotheses, but stimulated and guided by the results of intelligent investigation. Because we honor those who have gone before us does not mean that we should not advance. On the contrary, we would not be consistent if we did not advance.

We have respect and admiration for those who have lived in other times, and who have done the best they could with the lights before them, but we do not hesitate to displace the faulty teaching of even a patriarch when investigation has shown that it was faulty teaching. Celsus and Galen, Albucasis and Avicenna, and Guy de Chauliac were powerful men in medicine. The names of all of them are cherished because they were progressive leaders, but in the times in which they lived there was no systematized knowledge of human anatomy; no correct notion about physiology; no familiarity with the circulation of the blood; no conception of the bacterial causation of disease. We honor their memories because of their efforts in the uncertain and distant past, but all their teachings we do not follow.

And there were many others in more modern times who did their part—a part of much more importance than fell to the lot of those before them, and yet they did not dream of the fruition of ceaseless progress as we know it today. Ambroise Pare, Wm. Harvey, Wirsung, Glisson, Sydenham, Malphighi, Nuck, Poupart, Boerhaave, Von Haller—illustrious names, all of them; great physicians, every one of them, and yet not one of them dared to say that medicine had reached perfection in his time.

But we may mentally leap forward and come to periods still nearer our time—periods in which lived such stalwart members of the profession as Percival Pott, the Hunters and Jenner; the period in which the medical world was electrified by the brilliant Bichat and the great Laennec; the period of pioneer medicine in the United States, represented by such members of the profession as Benjamin Rush and Ephraim McDowell. Wonderful periods in the progress of medicine! Wonderful representatives of our profession! And yet no one of them knew about the priceless heritage that was to come to the profession and to humanity through the unselfish labors of the indefatigable Claude Bernard and the immortal Louis Pasteur.

In medicine, as in all things else, progress is due to science, because science is simply a name for the process through which facts are discovered and assembled in a proper way. When the facts are discovered and assembled there is scientific proof and then we must be willing to relinquish any conflicting opinion. We must give up our fondest hobby, if need be; if need be, we must turn our faces about and go in another direction. With this conception of the duty of the physician to his profession, we say to everyone in the forceful language of Emerson: "Speak what you think today in words as hard as cannon balls and tomorrow speak what tomorrow thinks in hard words again, though it contradict everything you said today."

But there is one lesson that the fathers in medicine taught that is as sound today as it was in the beginning, and that is the altruism of the profession—the disinterested benevolence through which help is carried to unfortunate humanity. In my judgment, that does not mean that the physician should not be paid for the service he renders, provided the patient is able to pay; but it does mean that no necessary service should be denied those who are sick, regardless of their ability to pay. After deliberate reflection, I believe that commercialism is the greatest menace that medicine faces today. There is an increasing tendency for the medical man to measure his success by the money he makes,

rather than by commendable professional accomplishments. While the making of money is necessary, it should not be the prime purpose of the right thinking physician. Beyond question, he should make money, and in order to do that he has only to be prepared to render valuable service. Under ordinary circumstances, if one is a good citizen, professionally capable, kind to the poor, active, alert and industrious, there is no question about a livelihood.

The physician, if he does his duty, will concentrate his efforts upon his professional work. He should not permit outside interests to encroach upon his professional duties. If he is of average intellectual ability, that means that he will have to devote a great deal of time to study and investigation. Medicine is more exacting, and no one, regardless of how brilliant he may be, can properly represent the profession without diligent study of the problems he must consider in his daily work. The physician, like his profession, should be progressive. I do not mean by that, that he should necessarily make discoveries of things not already included in medical knowledge. I mean that he should by industrious application discover for himself in the great storehouse of recorded professional knowledge, truths that he did not know. I mean that each day he should be a better physician than he was the day before.

These things to which I have called attention represent some of the important tenets of the medical profession, and, as I understand it, we, as members of the profession should be governed by them. It is not enough for us to subscribe to them from the teeth out, but we should, I repeat, be governed by them. Take for example, the question of the cults. If the cults have not contributed to the good of humanity, then, surely, we do not owe them anything. If the cults have not only failed to contribute to the good of humanity, but antagonize the regular medical profession in its efforts to help humanity, then it becomes our duty as members of the regular profession to refuse to have any professional relations with them. That, surely, is the very least thing that we could do and preserve our professional self respect. If this is true, the physician who, as a matter of expediency, gives comfort and support and at least quasi-endorsement to the cults by having professional relations with them is, in my judgment, an apostate to his profession. He not only is not doing his duty to the profession, but he is a traitor to its traditions, its aspirations and its principles.

As I see it, these duties of safeguarding the principles of the profession are incumbent upon every one of us who has been honored with its privileges and charged with its responsibilities. But they are doubly incumbent upon those who temporarily or permanently, are placed in positions where they are looked upon as leaders in professional activities. If, at any time, we find ourselves in a position where we should take a stand against the cultist, we must do it and be true to our profession. The cult opposes the fundamentals of our profession. It opposes vaccination against small-pox. It opposes antitoxin for diphtheria. It opposes the doctrine that pathogenic germs produce disease.

It is unfortunate that many of our medical schools are politically controlled and the affiliated hospital managements are subject to change to suit the complexion of the moment. Usually these changes are detrimental to the institution and can only result disastrously to medical education. The American Medical Association and the American College of Surgeons have laid down certain requirements for both schools and hospitals. This only occurred after years of study and they should not lightly be abrogated.

Only the vicious or grossly ignorant can claim that the cultists have added a year to the longevity of the race or added anything material to industrial or economic progress. Can a partisan to osteopathy, chiropractic or what have you, point with pride to a feat comparable to the building of the Panama Canal, which every school boy knows was the result of improved sanitation? Can any of the cults designate one of their rank who compares with Reed, Carroll, Lazear and Agramonte? To a Carrel, a Banting, or a host of others living and dead, who have contributed materially to human health and happiness? Within the past decade and a half, we have seen typhoid become an exceedingly rare disease in most localities. We need only to point to the comparative morbidity of the world war soldiers as contrasted with the Spanish American conflict. Do the cultists claim any credit for this miraculous improvement?

Of course, we should clean our own house first. We should eliminate from our societies and hospital staffs those "wolves

in sheeps' clothing" who all too frequently infest our ranks. It is only by unceasing vigilance that this may be accomplished and organized medicine must exert its utmost care or we will be corrupted from within. It appears to me that we should "pluck the beam from our own eyes first," and when this is thoroughly accomplished then the mote in the eyes of others will be comparatively easily dealt with.

I have often pondered over the triumphs of medicine as compared with the other arts and sciences. Cellini has had the plaudits of the multitude for over four-hundred years. Caruso attained his highest success before the foot-lights with a vast audience, who broke into rapturous applause under the spell of his golden voice. But what of the physician? From the cottage at midnight when some crisis in a child's life has passed, or from the operating room where some unusually difficult surgical feat has been accomplished, or from the laboratory where research has been completed he emerges triumphant—and what audience applauds his success? An anxious mother, a nurse or two, and a few assistants. And what is his reward? The satisfaction which comes from the fact that his skill has relieved a sufferer or that his research has led to a discovery by which humanity will be benefited.

If the physician is the right kind of human being, he can become a great power for the good of humanity. If he understands his duty to the profession, he will stand with granite determination to protect its traditions and its altruistic interests. He will have faith in God and will be governed by the truth. He will be a harbinger of the blessings yet to come.

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CHORIONEPITHELIOMA OF UTERUS: REPORT OF CURE IN YOUNG WOMAN PRESENTING EXTENSIVE METASTASES

Julius E. Lackner and M. L. Leventhal, Chicago (Journal A. M. A., April 2, 1932), report a case of chorionepithelioma of the uterus for two reasons: first, to record a case of this condition in an exceptionally young woman (aged 19) which though microscopically falling into Ewing's classification of choriocarcinoma with extensive metastases nevertheless was successfully cured by hysterectomy and roentgen therapy; and, secondly, to demonstrate the pitfalls in diagnosis, prognosis and treatment which attend chorionic tumors. On the basis of their observations in this case the authors conclude that the microscopic picture of chorionepithelioma is not always a true prognostic index of the disease and that radical surgery plus irradiation offers the best results in the treatment of malignant chorionepithelioma.

SOME PRELIMINARY OBSERVATIONS OF "BACTERIOPHAGE"*

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Definition: "A Bacteriophage is an ultra microscopic filter passing organism or virus that multiplies upon the young, virulent, growing pathogenic organisms."

Most discoveries have their roots deep in the past. In 1896 Hankin published a paper in the Annals de l'Institute Pasteur in which he drew attention to the notable bacteriocidal properties of certain Indian river waters. He found that the Jumna, just below Agra, contained over 100,000 organisms per cubic centimeter, but that five kilometers further down the river only contained 90,100 organisms in the same bulk. On further investigation it was found that the filtered water exerted a marked lethal action upon the cholera vibrio in the test tube, an effect which was abolished by boiling. Hankin attributed this to a volatile substance which he failed to isolate and his observations remained lonely and unexplained until brought into light again by d'Herelle.

In 1917 d'Herelle made the fundamental observation which led to the discovery of the bacteriophage, about the phenomena concerning which an enormous mass of literature is now assembled. Working at the Institute Pasteur, d'Herelle discovered in sterile filtrates from the stools of a patient suffering from Shiga dysentery, a substance which inhibited the development of these organisms in broth cultures under certain conditions, destroyed them. If, for example, a few drops of such a faecal filtrate, active in this manner, were introduced into a young broth culture of B. Dysenteric Shiga, in which the clouding of bacillary growth was just beginning to appear and the mixture were further incubated, the result was not the usual and progressive increase in the turbidity of the culture but a gradual clearing, and after twelve to twenty-four hours all trace of bacillary growth had disappeared. The bacilli were no longer detectable and, according to d'Herelle's early statements, were completely killed off.

The striking and unique feature about this phenomenon and one outside the realm of previous experience, was that the

*Chairman's Address, Section on Eye, Ear, Nose and Throat, delivered at Annual Meeting Oklahoma State Medical Association, Tulsa, May 24, 25, 26, 1932.

lysis was found to be transmittable in series, ad infinitum, without any exhaustion of the lytic principle. At the end of such an experiment the principle could be separated off by filtration and the resulting sterile filtrate used to start the lysis of a second bacterial culture. This was an entirely new phenomenon in bacteriology —quite different from any form of bacterial destruction hitherto observed. d'-Herelle quickly proclaimed it to be brought about by an ultramicroscopic living virus, a parasite of the bacteria, which underwent multiplication in the culture whose dissolution it caused. In his view these solutions were in effect cultures of the virus, to which he gave the name of Bacteriophagium Intestinale. Such a position he has maintained unmodified, in the face of a great deal of opposition, up to the present time.

A second method of showing bacteriophagic activity and a very important one for the detailed study of the phenomenon, is that devised by d'Herelle for its demonstration in surface cultures. d'-Herelle found that if a very small quantity of a lytic filtrate or of a lysed culture such as we have just described, were added to a young broth culture of the Shiga Bacillus and subcultures upon agar made from the mixture at regular intervals. Then, at a certain period of their interaction the result obtained was a surface growth of the bacillus on the agar which showed sharply punched out clear areas which were devoid of organisms. These areas d'Herelle claimed to be "colonies" of the bacteriophage and from this experiment he devised a technique by which he considers it possible to estimate the number of bacteriophagic units in any given fluid. The method is also available for the demonstration of a feeble bacteriophagic action, which would be too slight to be detected by the visible lysis of a broth culture.

Such, in the barest outline, are the fundamental experiments upon which all the work and theories which the subject has called forth are founded. These are accepted facts and without dispute.

Numerous theories are advanced, the chief of which are as follows:

1. For d'Herelle, the bacteriophage is a living microorganism, the obligatory parasite of the bacteria. This is in contradistinction to those who favor the hypothesis of a ferment substance. It is evident that a simple ferment action cannot be the solution, since the material is reproduced on each occasion of its action and is therefore inexhaustible.

2. The theory of autolytic ferments is more plausible than that of a simple ferment action—the view being that these once introduced, set going an autolytic process in the bacteria which result in their dissolution and a freeing of a lytic substance from their interior. In this way the process may be carried on indefinitely. There are other theories very similar to the preceding but are rather technical in description and will be left for a more complete discussion of this subject.

At the present time it is impossible to conclude as to the nature of the bacteriophage; however, the subject is of intense interest and far reaching in its possibilities.

GENERAL CHARACTERISTICS

These are varied and extraordinary. The principle is non-specific and its action may be exerted upon a number of bacterial species—*e. g.*, a given phage may have a powerful dissolving action upon a certain bacillus—a moderate one upon another and slight upon the third, while the intensity with which another strain affects the same organisms may be conversely.

The virulence of a bacteriophage may be enhanced by repeated transfers in broth culture. Clear fluids which result from lysis are regarded by d'Herelle as a pure culture of the bacteriophage. Living cultures are necessary for this purpose as there is no bacteriophagic action on dead bacilli.

ISOLATION AND DISTRIBUTION

It has been isolated from faeces, found in water and soil, in sewage, urine, pus, trypsin, peptone, etc. It is always found in association with living bacteria. Its isolation may be effected by filtering the homoginised material thru bacterial filters or by repeated heating to 56 to 58 degrees C. Hadley states that it may in certain cases be obtained by the simple procedure of growing an organism in its own filtrate over fourteen to twenty generations.

PHYSICAL AND OTHER PROPERTIES

The action of the lytic agent is only exerted on the young, actively growing cultures. This takes place over a wide range but is most active just on the alkaline side of neutrality. Acidity of the media has a deterrent effect upon the process. It is filtrable thru the whole range of Pasteur-

Chamberland filters. In general it may be stated that its activity persists over a number of years. The lytic material is, however, rendered completely inert by exposure to a temperature of 75 degrees for thirty minutes. Its activity is rapidly destroyed by ultra-violet light although it shows considerable resistance to chemical substances.

EFFECTS UPON BACTERIA

The first result of the contact between the bacterium and the bacteriophage is the absorption or adsorption of the bacteriophage by the bacterium. This combination may take place at low temperatures without lysis—however, lysis rapidly takes place when the temperature is raised. The bacteria seem to swell and become spherical—suddenly they burst and disappear in a cloud of granules.

In the case of marked activity all of the bacteria may be destroyed but it more commonly happens that some of the organisms survive and if incubation be continued growth reappears after an interval of a few days. Such growths are called secondary or sub-cultures. These bacteria in the sub-cultures are probably strains that are merely resistant to lysis, or strains which, while themselves resistant, have incorporated the lytic principle. Such cultures are capable of imitating lysis in growth of ordinary bacteria. This lysogenic characteristic is seldom permanent and by repeated cultivations the original type is reproduced by elimination of the bacteriophage. As an illustration of the complexity of the subject, it may be mentioned that several investigators have found that the resistant strains which they obtained of certain bacilli were avirulent, whereas the sensitive strains were pathogenic to a high degree, a result in direct contradiction to the theory of others.

THE BACTERIOPHAGE IN INFECTIONS

The bacteriophage is unquestionably a factor in the prevention and recovery in infectious diseases, in that it parasitizes the bacteria, causing their death and completely lysing the bacterial cell. Since its discovery a vast amount of literature has accumulated relative to its therapeutic value. "Larkin and Pratt" in the treatment of general furunculosis in sixty-six cases, report favorable results in sixty-five with no recurrences. Dolsace was able to show lytic action or susceptibility of organisms present to an active lytic agent were those strains that resisted the ordinary forms of treatment. Albee, McKinley and many others have reported many cases successfully treated.

Our interest in this subject lies in the hope it will offer a means of subduing bacterial flora in the upper respiratory tract.

Many of us have pet theories as to the prevention and treatment of these conditions but no one has as yet presented an entirely satisfactory method. The respiratory tract is a normal habitat for organisms of all types and is histologically the same throughout, so that it should be considered more or less as an entity in the treatment of infections.

We desire to report the following cases for your consideration:

Fifteen cases of acute otitis media (apparently early stage of purulent formation) where the tympanic membrane was inflamed and beginning to bulge, together with severe pain and other symptoms of acute middle ear infection. Twelve of these were in children and three in adults. In all instances but one the pain was relieved in a few minutes and did not reoccur. One case did not respond and a paracentisis was done after one hour trial of bacteriophage without immediate results.

Cases showing marked bulging of the tympanic membrane were not so treated. Five cases of chronic maxillary sinusitis with an improvement in those which were not known to have antral polypi or granulations. Two cases were bilateral in which one side improved and the other side which contained polypi did not improve.

Ten cases of furunculosis of the external auditory canal with more or less general otitis externa with favorable results in all.

Several cases of acute rhinitis with apparent improvement in practically all. Two cases of chronic lung abscess with a distinct improvement in one.

One case of asthma with bronchiectasis was markedly improved.

We report these few cases that have been treated and observed over a period of a few months for your consideration and with the hope that you will give this more or less new and untried method a trial.

We have used both the stock and specifically autolysed bacteriophage with equal results as far as we could determine. The stock preparation used was the staphy-

lococcus, streptococcus and mixed lysate of Eli Lily and Company, used mostly in liquid form except in the case of furunculosis of the external canal where we used the jelly form.

It is theoretically sound to expect the bacteriophage with its lytic properties to invade and permeate all the superficial tissues, coming in intimate contact with the bacteria, thereby, exerting its lytic principles and producing disassociation of the bacteria.

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ACUTE STAPHYLOCOCCAL INFECTIONS OF KIDNEY: THEIR CLINICAL ASPECTS AND TREATMENT

Reed M. Nesbit, Ann Arbor, Mich. (Journal A.M.A., Feb. 27, 1932), discusses a series of forty-eight cases of acute staphylococcal kidney infection observed and treated at the University Hospital during the past three years. On the basis of his observations he draws the following conclusions: Acute staphylococcal infections of the kidney are relatively common. They are hematogenous in origin, a recognizable focus generally being present. The parenchymatous lesion is characteristically cortical in its location and shows a marked tendency to heal promptly and completely. Costovertebral pain and tenderness are constant. Examination of the stained urinary sediment is essential in all suspected cases. The disease tends to run a stormy though self-limiting course, ending in complete recovery. Surgical treatment should be employed only in cases in which complications develop, of which perinephric abscess is the most common.

SOFT CURD MILK

Recent interest in soft curd milks has turned more attention to the kinds of curds formed in the stomach of the infant by cows' milk and modified formulas.

A synopsis of the work done up to the present time has been made by Professor R. M. Washburn in an article entitled "Soft Curd Milk" published in the December, 1931 number of "The Milk Dealer." He points out that according to one series of tests, the lowest values for soft curd milk range from 14 to 34; the average from 53 to 69; and the highest from 107 to 116.

Even these lowest values for cows' milk are very high compared with human milk which shows a curd tension in the neighborhood of zero, as does also S.M.A.

It is gratifying to officals of S.M.A. Corporation to note that more attention is now being given to the characteristics of the curds. In 1921, when S.M.A was offered in response to the demand of physicians, there was not the general understanding of the importance of the fact that S.M.A forms soft curds very similar to breast milk.

IMMUNIZATION AGAINST DIPHTHERIA WITH TOXOID IN PRIVATE PRACTICE*

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The prevention of diphtheria by immunization is long past the experimental stage. Its usefulness has been proved by communities the world over. It has been accepted so generally by the profession that at the recent conference on Child Health and Protection, a questionnaire revealed that only one out of a hundred practitioners did not believe in immunization.

That every child should receive the necessary immunization is, of course, the most important part of the program so far as public health is concerned. I believe that this procedure should rest with the family physician rather than the health authorities, now that the public is sufficiently educated to its necessity.

At the present time there are three methods in use for active immunization, with modifications of each: toxin nearly neutralized with anti-toxin produced in horses; toxin nearly neutralized with anti-toxin produced in goats or sheep; and toxin modified by exposure to heat and a little formalin, so that it becomes practically free from toxic action. This latter toxin, a comparatively new product, was first observed by Ramon of France in 1924, to have a greater immunization power than TAT, as well as being free from toxicity and serum proteins. Just recently, a fourth product, a paste to be applied subcutaneously, has been produced and is still in the experimental stage.

The toxin, modified by heat and formalin, is being produced by the commercial houses for use among practitioners and is called "Toxoid" or "Anatoxin-Ramon." It is prepared by growing a virulent strain of the diphtheria bacillus in broth, which does not contain horse meat, to eliminate the possibility of sensitivity to horse protein. At the end of a week this material is filtered and tested for its toxic value. Federal regulation requires that the toxin from which "Toxoid" is made should have a certain standard strength, which is determined by its flocculation unit with a standard anti-toxin. After the toxin is

*Chairman's Address of Section on Pediatrics, delivered at Annual Meeting Oklahoma State Medical Association, Tulsa, May 24, 1932.

selected a small amount of U. S. P. formalin, not to exceed 0.4% is added to bring about complete detoxification. This formalized toxin is kept at a temperature of 39 degrees C. and tested at weekly intervals on guinea pigs. The time required for detoxification varies with each lot. Then guinea pigs are injected with the initial human dose and six weeks later they receive five mininal lethal doses of a standard diphtheria toxin, At least 80% of these pigs must survive the test. Toxoid made in this manner, contains approximately 50 times the amount of media and bacterial protein that is present in TAT.

Toxoid was not introduced in the United States until 1930, but has been used in France, England and Canada since 1924. During the epidemics of diphtheria in France in 1924, 1925, and 1926, 300,000 children were immunized with very favorable results, with the toxoid.

Many interesting experiments have been carried on to determine the dosage and the intervals between doses which would give the best results. Ramon reports that during the above mentioned epidemics, vaccinations were done on persons of all ages and in all walks of life. Thousands of children were immunized and the proportion rendered immune with two injections was 90 to 95% and with three injections 97 to 100%. From these investigations Ramon advocates giving three doses approximately three weeks apart of 0.5 c.c., 1.0 c.c., and 1.0 c.c. If the doses are given too close together as one week apart, the production of immunity seemed to be inhibited.

A very long and tedious experiment was performed in the Vienna Leopoldstadter hospital for children in 1927-1928. They found that children who received doses of 0.5 c.c., 1.0 c.c., and 1.0 c.c., seven days apart were rendered 88% immune; those receiving 0.2 c.c., three days apart were 68% immune; those receiving 0.5 c.c., five days apart were 68% immune and those receiving five injections four days apart of 0.2 c.c., were 92% immune. Two years later 71 of the 100 children could be Schick tested again and 50 or 70% were still immune. Some of the children who had received the smaller doses even though they were Schick negative at the time of dismissal had become Schick positive. Also some of those who had received the larger doses and were still Schick positive at the time of dismissal had become Schick negative. None of the children had had diphtheria although many had been exposed. The results of these experiments lead one to believe that the larger doses given at longer intervals are more efficient and produce a more lasting immunity.

Fuerstman reports a series of 125 children, all Schick positive reactors from 4 to 6 years of age. He gave two doses of 1 c.c., each at intervals of three weeks. He followed with a similar group giving them three injections of TAT of 1 c.c. each at weekly intervals. Retesting both groups six weeks after the last injection gave the following results:

	TAT	Toxoid
Number treated	125	125
Number positive	18	8
Number negative	107	117

The toxoid gave much better results.

Now I will present a series from my own private practice. After reviewing literature, I decided to give three doses of 1 c. c. each of the toxoid, three weeks apart instead of the usual two doses. I have given 736 children toxoid since October, 1930. Of these, 263 have returned for the Schick test, which I advise giving about six weeks after the last dose. Out of these 263, 254 or 97% Schick tested negative and only 9 positive. During the same period, I gave 119 older children TAT, three doses one week apart. Fifty-three of these have returned for the Schick test, which I give six months after the last dose. Of these 53, 35 or 66% were Schick negative. These series show a decided advantage to toxoid for immunizing young children.

Since October, 1930, I have given the Schick test to 434 children, some of whom had received serum previously but the nature of which I am not able to state and some of whom had never had any immunization. It might be well to remind you of the delicacy of the Schick test. If it is not properly given and read it is more than useless, for the interpretation may easily be wrong. I always have the children return for readings the third day after the test and if in doubt, again several days after that, for the true positive reaction will persist for a week or two. The majority of these 434 children were from the ages of 6 to 16. Of these, 129 were positive and 234 negative. No comparison can be made between the advantages of toxoid and TAT from this series except the observation that older children, who are not immune, build up an acquired immunity much slower than younger children and

therefore the most ideal time for immunization is during the first 18 months of life. Of these 129 positive Schick test reactors, I gave those seven years and under, 82, toxoid. Thirteen of these have returned for the Schick test and four were still positive. Twenty-two, those over 7 years, received TAT. Three have returned for the Schick test, two being negative and one still positive. From this series you can see the importance of giving the Schick test to all children after the three doses of toxoid or TAT, remembering that there are three in a hundred who are falsely assured of protection.

Observers report many and varied reactions among young and older children to both toxoid and TAT. It has been my experience that children up to seven years tolerate toxoid much better than they do TAT. Several years ago, I had three very severe reactions with TAT. The children were 2, 4½, and 5 years of age. They had an erythemia at the site of injection of a deep-red color from 2 to 3 inches in diameter, edema from the finger tips to the shoulder, headache, chills and high temperature lasting forty-eight hours. I have had several reactions from toxoid but none of them severe. One child had nightmares after each dose but no temperature or other discomforts. Another, aged one year, developed a very offensive breath after each dose which lasted about twenty-four hours. Another, two years of age, developed a very severe attack of asthma after a dose of 2-3 c.c., and another sneezed for an hour continuously after each dose. One child, three years old, who had previously had 20,000 units of diphtheria anti-toxin for larngeal diphtheria had an anaphylactic shock which was relieved immediately by a hypodermic of 1 c.c. of 1-1,000 solution of adrenlin. These are the only reactions that I have had from giving toxoid to about 800 children.

I do not give toxoid to my allergic patients, preferring to Schick test them and if they are positive to keep them under careful observation and during an epidemic being especially suspicious of a sore throat. This is the same plan I follow with children over ten years as the TAT often gives a very severe reaction due to sensitivity to serum proteins, and the toxoid is decidedly out of the question for older children.

It is contended by many authorities that after immunizing many children the percentage of fatality among cases of diphtheria is increased. Immunization is in no way responsible for this interesting fact. Some believe we are fighting a more virulent strain of the diphtheria bacillus than previously but it seems to me that only the neglected children are contracting diphtheria and do not receive treatment as early in the disease as is necessary. In my private practice not one child has contracted diphtheria who has had three doses of toxoid and a negative Schick test. In fact only two contracted the disease during the immunization period and these within the first seven days after the first dose. Our City Health Department states that they have not had a single case of diphtheria among children who have had toxoid. All the children except one, which terminated fatally, who had had the TAT had very mild cases. None of these children had had the Schick test which would have shown them not to be protected.

We have always assumed that new-born babies up to six months had a natural immunity to diphtheria. No doubt this is the general rule, but I wish to cite a case I saw this winter. A baby, three weeks old, was sent to me for examination and I only saw it the once. It was suffering from a tonsillar diphtheria which was verified by a positive culture. I advised giving 5,000 units of anti-toxin but the baby died the following morning. It is interesting to note that during the baby's illness another child in the family was suffering from a sore throat.

In conclusion I wish to leave these four points with you:

First: The results of my series of giving three doses of toxoid at from three to four weeks intervals in which I received a 97% immunity among children under seven years, warrants giving toxoid in three doses instead of the usual two. The reactions being so slight, with the exception of the allergic child I give the three doses without hesitation.

Second: Since it is quite easy to produce a 97% immunity without reaction through the use of toxoid in three doses during infancy, it is imperative that physicians insist upon immunizing the patients under their care.

Third: The Schick test, given a sufficient time after the last dose, is necessary and imperative to protect every child from a false feeling of security.

Fourth: Do not hesitate to give the antitoxin in any suspected case of sore throat

with a membrane or croup that is suspicious of a diphtheric origin, even though the patient gives a history of having had toxoid or TAT without a Schick test.

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BISMUTH SUBNITRATE IN TREATMENT OF ARTERIOLAR (ESSENTIAL) HYPERTENSION

Although Stieglitz recently reported excellent therapeutic results following the use of bismuth subnitrate in 200 patients with arteriolar (essential) hypertension, David Ayman, Boston (Journal A. M. A., Feb. 13, 1932), obtained unsuccessful results with the drug after its long administration to a small though well studied group of patients with arteriolar hypertension. He presents the chart of one patient which illustrates the method of control and study used for all the patients, and the results obtained. While bismuth subnitrate was taken by the patient for six months, the blood pressure was not affected to the slightest degree demonstrable. On the other hand, it was lowered by thiocyanates; by frequent visits, and by frequent visits plus pink-colored water; at all times it was lowered by sitting rest periods. A similar study of fourteen cases showed absolutely no demonstrable effect of the bismuth subnitrate on the blood pressure.

BENIGN TUMORS OF STOMACH

Bruce C. Lockwood, Detroit (Journal A. M. A., March 19, 1932), gives the relative incidence of benign to malignant growths in the stomach as about 1 to 20, as shown by the records from both operating and autopsy rooms. The percentage of diagnosed cases of benign tumors would be increased by more frequent and more careful fluoroscopic study. The roentgen observations are reasonably characteristic. In order to demonstrate the smaller lesions, the stomach must contain only small quantities of the contrast mixture, the walls must be approximated by manual pressure, and the patient must be examined in both the upright and the prone position. The symptoms are not typical; they vary with the site, size and character of the lesion, and may simulate other forms of indigestion. Because of the tendency of these slowly growing benign tumors to become malignant, their recognition is important and their surgical removal indicated.

SOME RECENT HIGH POINTS IN SURGICAL PROGRESS

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OKMULGEE

As chairman of the surgical section, I wish to extend a welcome to our distinguished out of state guests as well as to the members of this association.

In these introductory remarks, I shall touch briefly some of the high points of surgical progress made in the past few years.

When I began to practice surgery fifteen years ago, a fair history of a patient was taken; the heart and lungs were examined with the stethescope; the urine was tested for albumin and sugar, and sediment observed through the microscope for casts. Today, tests of the blood, kidneys, liver and heart, with the liberal use of the X-ray make it possible to be much more accurate in our decisions as to operability, and to recognize diseases earlier while they are still curable.

During the World war great strides were made in the development of plastic surgery, especially of the face. Burn contractures are being handled with marked success, relieving numerous disabilities which otherwise would have left the individual a hopeless cripple and dependent on charity for his maintenance. Economically this has saved large sums of money, not only for the organizations of charity, but for industries in the way of compensation.

In the treatment of burns great changes have taken place. The mortality rate has been decreased sixty-five per cent, the cost of hospitalization fifty per cent, and the disability seventy-five per cent, to say nothing of the relief of the suffering of these individuals. For example, it was my privilege to treat recently a second degree burn involving forty per cent of the man's body, and to have this patient out of the hospital with all surfaces healed in twenty-one days, and back at his regular work in six weeks. These results were obtained by the use of the newly perfected tannic acid jelly.

Great changes have taken place in abdominal surgery. Early X-ray diagnosis and better preparation of patients has greatly increased the number of cures of cancer in the entire intestinal tract. Surgical treatment of gastric ulcer has grown more radical and that of duodenal ulcer

has become more conservative. Surgery of the gall-bladder has undergone radical changes. Without disease of the common duct and the pancreas, the operation of choice is now cholecystectomy, and the cholecystotomy when these organs are involved. There is no place in surgery where more skillful surgical judgment is required than successfully operating upon the gall-bladder and the common duct.

Womankind has been wonderfully blessed by conservative surgery of the ovaries, tubes, and uterus. Only a few years ago, numerous Caesarean sections were performed on the eclamptic patient. With the conservative treatment now used the mortality rate has decreased and the stormy post-operative period has been eliminated. The office use of the cautery to the eroded cervix has no doubt been of great benefit in preventing cancer in this area. The female organs are no longer operated for every complaint of backache. Instead, our orthopedists are now trained in their methods of procedure to determine the shortened limbs, and curvatures and injuries of the spine, so that they may be corrected by proper shoes, braces, corsets, etc.

Urologists have developed accurate methods of diagnosis and treatment until now they can bring relief to the vast number of persons who suffer from diseases of the genito-urinary tract.

Conservative treatment by the dehydration method has saved the lives of many patients with fractured skulls and concussions, where formerly numerous operations would have been done. The early recognition of the signs and symptoms of brain tumor have permitted these patients to be operated on earlier and more successfully.

In recent years, we have been presented with numerous new types of anesthetics and methods of administering them; so that where ether seems inadvisable the operator can select the anesthetic suitable for each individual patient.

Our hospitals have been improved by better nurses and by being equipped with clinical and X-ray laboratories.

The span of life has been extended some twenty years in the last two decades.

It seems to me that one of the greatest advances that modern surgery has made has been in the changed attitude of the surgeon toward the patient. We no longer operate upon a case of appendicitis, but upon a specific individual who is suffering with this malady. Each patient must be studied from the mental and financial point of view as well as the physical. It is of vital importance that each person who consults a surgeon shall be considered as a specific individual and treated as such.

I have undertaken to show briefly some of the improvements made in surgery in the last few years. In the papers which follow on our program, we hope to show more specifically, by definite procedures, the progress made in modern surgery.

I wish to take this opportunity, at the beginning of this session, to thank those who have prepared papers and so helped to make this meeting a success.

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VOLUME OF CIRCULATION AND ITS REGULATION BY VENOPRESSOR MECHANISM

Yandell Henderson, New Haven, Conn. (Journal A. M. A., Oct. 31, 1931), states that the volume of the circulation, or amount of blood pumped each minute by the heart, is about twenty times as large as the volume of oxygen absorbed from the lungs in the same period. In a normal man at rest, it is a stream that is equal each minute to the entire blood volume of the body. It is much larger during physical activity, and much smaller during illness and postoperative depression. Investigations in recent years have yielded knowledge of great general value regarding the circulation in health and disease but not as yet an entirely satisfactory clinical method for measuring its volume. Such a method will afford information as instructive as that now obtained by means of the sphygmomanometer or the electrocardiograph. The factor that chiefly determines the volume of the circulation is the venous return to the right side of the heart. This factor conditions both increase and decrease of the circulation. During physical exercise the heart can pump onward through the lungs and into the arteries only the volume that comes to it through the veins. In illness a failing heart is generally due rather to an inadequate venous return of blood than to depression of the strength of the heart itself. The blood is not merely pushed back to the right side of the heart by the pressure transmitted from the left side of the heart through the arteries and capillaries to the veins; nor is the venous return due in the main to the vasomotor control of the blood vessels. According to the view presented by the author, this vitally important third factor in the circulation is maintained and varied chiefly by quite another force; namely, the general tonus of the musculature of the body. This tonus, by the pressure which it exerts on the tissues and blood within them, and especially on the abdominal viscera, is the force which in health maintains and varies the volume of the venous return. In illness the depression of muscular tonus permits a stagnation of blood in the tissues and a consequent failure of the venous return. Both in health and in illness the general muscular tonus, the volume of the circulation and the activity of respiration are increased and decreased in closely parallel relation and largely by the same influences.

THE ANTERIOR PITUITARY*

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The study of the endocrine glands may be traced back to Galen, who first described the pituitary as the "phlegmatic glandule," whose function, he thought, was that of collecting the excrementous slime formed by the brain and passing it on through the "rete mirabile," which was later described by Willis as the vascular circle to the nasal passages.

A few hundred years later, Bordeu gave us our first intimation of an internal secretion, and in 1853 Claud Bernard further stimulated us with his brilliant studies of hepatic glycogen. Brown-Sequard first propounded the theory that each cell secreted a certain substance which might influence other cells independently of the nervous system, and when Shaefer in 1894 demonstrated pressor substances in the pituitary, existence of internal secretory hormones became an established fact.

ANATOMY OF THE HYPOPHYSIS

The study of the anatomy and histology of the pituitary served as a further stimulus to research into the intricacies of this gland. The hypophysis arises from two unrelated embryological sources. The neural portion, or posterior lobe, develops from the neural tube as an evagination of the brain floor, which also forms the infundibulum and stalk. The epithelial portion, or anterior lobe, is derived from Rathke's pouch, an evagination of the buccal ectoderm or primitive mouth, which later becomes the naso-pharynx. This part finally differentiates further into the pars intermedia and pars tuberalis, and the former becomes initmately related with the posterior lobe, and the latter with the infundibulum and tuber cinereum. Thus it is seen that the two lobes differ greatly in structure and in their embryonic origin. The posterior lobe is composed chiefly of neuroglia cells and intimately connected with the floor of the third ventricle, whilst the anterior lobe is glandular in structure. The only apparent reason for their being classified as a single gland is an anatomical one, due to the fact that they lie in intimate contact with each other in the sella turcica.

The hypophysis is larger in the female than in the male and enlarges during the menstrual period and during pregnancy. It returns to almost normal size after each menstruation and reduces after delivery, but not quite to the pregestational state. It is larger in primiparae than in multiparae and increases with each succeeding pregnancy.

CLINICAL SYNDROMES

Our knowledge of disease most usually begins with the description of a clinical syndrome, which as time goes on is readily recognized by others and eventually leads to laboratory investigation.

It was Marie who in 1886 first presented a clinical pituitary syndrome, which he termed acromegaly. This syndrome was characterized by skeletal overgrowth, producing transformation of the facial features to a massive, coarse countenance; enlargement of the head, hands, and feet; overgrowth of the lower jaw, with a resulting spacing of the teeth; and a high dorsal kyphosis, resulting in stooping. Exostoses form about the epiphyses and the terminal phalanges assume a mushroom shape; vague pains and aches, lameness and stiffness develop in the bones and joints. Chiasmal pressure signs produced by enroachment of the enlarged pituitary are rather constant. The libido, which is at first generally increased, later is lost, and the patient complains of emotional and mental imbalance. He becomes temperamental, irritable, morose, and in the early stages insomnia is the rule, but later drowsiness and hibernation prevail.

Sometime later pathological gigantism was recognized as a part of this condition, or as a corresponding one, differing in that it began earlier in life before the epiphyses closed.

Later Lorrain-Levi described a type of antuitarism characterized by a certain degree of dwarfism due to underdevelopment of the long bones; hypoplasia of the genitals; and lack of, or delayed, secondary sex characters, evidenced in the female by lack of development of the breasts and appearance of pubic hair, infantile adnexa, and amenorrhea. The skeleton is slender and the skin soft and pale. The shoulders are comparatively large, but this is an accentuation due to the infantile thorax. The epiphyses are normally united. There is no excessive adiposity, but a fullness of the mons veneris is usually

*Chairman's Address, Fortieth Annual Session, Tulsa, May 24-26, 1932.

present. The voice is high pitched and the mentality is usually very good.

In 1901 Alfred Frohlich described a classical type of adiposo-genitalis, characterized by genital infantilism, marked deposition of fat over the mammae, abdomen, and mons veneris. These children are of average, normal height, or slightly below. They are generally sterile and amenorrhea is usually present in the female. If the disease develops after puberty, there is generally some genital atrophy and retrogression of the secondary sex characters. Certain metabolic changes, such as lowered basal metabolism, increased sugar tolerance, polyuria, and subnormal temperature are usually present. Increased fatigability and increased intracranial pressure symptoms, such as bitemporal or homonymous optic atrophy, epileptic seizures, headaches, deafness, lowered mentality, may occur as a result of pituitary enlargement or neoplasm.

Brissaud's type is very similar to Frohlich's, except that these individuals are not so obese and that their height is generally above the average. They have round, chubby, infantile faces, and the hair is very fine and scanty except for that of the scalp, which is usually abundant. Mental and physical sluggishness is usually present. The genitals are rudimentary and the secondary sex characters are absent.

The adolescent type.—This is perhaps the most common type. The onset is about the time of puberty; therefore, the stature is not involved. The facial features are quite normal, but the beard is sparse, and, though the genitals may be of normal size, the secondary sex characters are poorly developed. Mons veneris padding is present, and the distribution of pubic hair is that of the female. The breasts are prominent, the thighs and buttocks are large, and the forearms and legs are small in comparison. These patients are usually very alert, though occasionally sluggish, and some show evidence of pituitary hibernation. The males are very effeminate and gentle in disposition. The females exhibit the same type of adiposity as the male, and the breasts are large and pendulous. Menstruation is generally delayed, and when present the flow is diminished and irregular. The basal metabolism is generally normal, the carbohydrate tolerance increased, and the appetite is usually voracious.

Neurath Cushing Syndrome.—Cushing has described a type of dyspituitarism presenting the signs and symptoms of both increased and decreased pituitarism occurring in the same individual. These individuals suggest a primary hyperpituitarism, or acromegaly, upon which later is ingrafted a hypopituitarism characterized by a rapidly increasing girdle type of obesity, physical and mental sluggishness, loss of libido, and various types of neuroses.

Laurence-Biedl Syndrome.—This syndrome was first presented by Laurence and Moon in 1866. It is characterized by a dystrophia adiposogenitalis of the Frohlichs' type[1], polydactylism, syndactylism, and retinitis pigmentosa, associated with mental retardation and deformity of the skull.

1. A case reported by me in this Journal, May, 1931, presented obesity more of the abdominal type rather than that which is usually associated with Frohlich's syndrome.

The etiology of this peculiar syndrome is still in doubt, but the majority of those who have studied it believe it to be of pituitary origin.

The Adult Type of Hypopituitarism.—This type occurs usually near the senesence. Obesity develops rapidly, the skin becomes waxy, the hair becomes sparse, and, in the male, the pubic hair may assume the same distribution as that of the female, and the female develops a hypertrichosis of the face. The appetite is increased, the libido is lost, and the patient becomes somewhat lethargic.

Dercum's Syndrome (Adiposadolorosa).—Although Dercum in his original description of this condition attributed it to thyroid dysfunction, many of the later writers who have studied this syndrome believe it primarily of pituitary origin. Certainly the fat distribution is of the pituitary type and, whilst the pain and tenderness is present over the entire body, it is particularly severe over the cervical region. Painful cervical fat pads are rather constant findings in hypopituitarism.

The relationship of some of these clinical syndromes to pituitary pathology was first evidenced in the examination of acromegalias coming to autopsy. Hypophyseal tumors were found in these individuals, and further examination revealed that the tumors were found in these individuals, and further examination revealed that the tumor was composed only of anterior lobe tissue. Later it was found that removal

of the gland in immature animals resulted in their growth being stunted, the development of obesity, and the primary and secondary sex characters being retarded. It was logically assumed then that the tumor found in acromegaly produced an irritation or stimulation of the gland and that pathological gigantism was due to an increased function; whereas the Frohlich types were the result of hypofunction. Much confusion and doubt accompanied the presentation of many of these clinical syndromes, especially in the Brissaud type, in which there was supposed to be a diminution of the sex hormone and overproduction of the growth horome.

The brilliant achievement of Evans and Long, who in 1921 first produced gigantism in rats by the injection of freshly prepared beef anterior lobe pituitaries, removed clinical pituitary syndromes from the sphere of doubt into the realm of reality. Their work was the stimulus for much intensive research, and as this continues, an ever increasing number of active hormones of the ductless glands are being presented.

ANTERIOR PITUITARY HORMONES

During the past decade animal experimentation has shown twelve, distinct, active principles of the anterior lobe of the hypophysis, the majority of which have been recently summarized by Bugbee, Simond, and Grimes. They are as follows:

1. *Growth Hormone.* The growth hormone was first demonstrated by Evans and Long. They prepared a saline suspension of freshly chopped bovine anterior lobe pituitaries and injected this intraperitoneally into rats. The rats grew rapidly to twice the size of the controls. In a series of dehypophysectomized rats the animals remained dwarfed and sexually immature, and developed obesity suggestive of Frohlich's syndrome. After a few weeks of intraperitoneal injections, the animals began to grow in length, matured sexually, and compared favorably with the normal controls. Difficulty was encountered in finding a method of sterilizing this substance and retaining its potency. This was later accomplished to a certain degree by Evans, Cornish, and Simpson by filtration. Further progress was made by Putnam, Teel, and Benedict in 1928. Recently, Bugbee, et al., have obtained a sterile product by filtration through asbestos and germ proof porcelain filters. This product retains its potency for several months at a low temperature, and will soon be available for clinical research. Evan's and Long's experiments have been corroborated by numerous investigators. Teel and others have produced acromegaly in dogs by the repeated injection of this growth hormone. Engelbach has recently reported the first case of hypopituitarism in a human treated with Evan's growth hormone.

2.-3. *Sex Hormone.* Smith and Engle in 1927, presented experimental evidence regarding the anterior pituitary sex hormone. This has been termed the "universal sex hormone," as it produces changes in the sex glands of both male and female simulating puberty. This hormone has two functions—a follicle-stimulating one, causing ripening and ovulation, and a luetinizing one, producing a leutinization of the follicle walls. Bugbee, Simond, and Grimes state, "at present we have no positive information as to whether there are really two sex hormones or whether only one sex hormone produces different effects under different conditions, particularly when supplemented by other hormones."

This universal sex hormone is also present in large quantities in the urine of pregnant women and has been found in amniotic fluid, placentas, and blood or pregnant animals. Its effect of producing corpora lutea and hemorrhagic follicles in the ovaries of immature animals is the basis for most of the present day pregnancy tests.

The interdependence of the gonads and anterior pituitary has been definitely established. Immature animals from which the gonads have been removed cannot be made sexually mature by anterior pituitary hormones, but may be matured without the power of reproduction by injections of hormones of the ovaries or testes.

In the absence of the anterior pituitary the gonads do not function and this is evidenced clinically in delayed maturity due to hypofunction of the anterior pituitary.

4. *Sex or Maturity Hormone (oral).* In 1929, Zondek reported an anterior pituitary sex hormone which he called Prolan. This hormone was capable of producing precocious sexual maturity in rats when fed orally and was more or less effective when given to women. A few months later Collip (who isolated the active hormone of the parathyroids) reported Emmenin, a

sex hormone prepared from the human placenta, which was effective by mouth. Prolonged administration produces continuous bleeding, whereas addition of the "second principle," results in the breaking of this continued oestrus reaction. His results have been very gratifying in the groups reported, which included forty cases of oligomenorrhea, forty cases of menorrhagia and metrorrhagia, and excellent results in over 90% of the cases of dysmenorrhea.

5. *Specific Dynamic Action.* Kestner and others claim to have demonstrated an anterior pituitary hormone which is responsible for the specific dynamic action of foods. These workers claim that in the absence of this hormone the obesity of Frohlich's syndrome develops.

6. *Thyroid Stimulation.* Crew and Wiesner and others found that removal of the anterior pituitary produced a decreased metabolism and atrophy of the thyroid. Transplants and injections of fresh pituitaries produced regeneration of the thyroid and return to normal of the metabolism. This is accepted as evidence of an anterior pituitary hormone which stimulates the thyroid.

7. *Lowering of Metabolism.* Lee and Gagnon report that injections of anterior pituitary growth hormone also decreased the metabolic rate. It is now thought that the growth hormone itself may stimulate anabolism and inhibit catabolism, resulting in the organism's lessened oxygen requirement and lowered gaseous metabolism.

8. *Water Intake and Output.* Teel and Bugbee, Simond, and Grimes observed that animals given daily injections of anterior pituitary showed a greatly increased water intake and output.

9. *Stimulation and Lactation.* Corner, Evans and Simpson, Parkes, and others have observed hyperplasia of the mammary glands and abundant lactation following anterior pituitary injections in animals. The concensus of opinion is that the anterior pituitary hormone functions through its effect on the ovary, or that some ovarian hormone must act upon the mammary glands previously to enable the anterior pituitary hormone to produce lactation. This conclusion is based on the fact that controls on males and ovariotomized females gave no results whatever.

10. *Non-Protein Nitrogen Reduction.* Teel and Watkins have repeatedly demonstrated a marked reduction of 20 to 30% of the non-protein nitrogen in the blood following injections of active anterior pituitary extracts in dogs. Extracts containing the growth hormone in abundance produced a greater fall than control extracts.

11. *Initiation of Menstrual Bleeding.* Hartman, Firor, and Geiling have in the past year demonstrated that menstrual bleeding in monkeys can be initiated by injection of anterior pituitaries. Removal of the animal's hypophysis prevented this bleeding except when replacement therapy was given. These experiments supply positive evidence that menstrual bleeding is due to the presence of an anterior pituitary hormone rather than to the absence of a corpus luteum hormone.

12. *Crop Gland Stimulator.* A twelfth activity of the anterior pituitary has been brilliantly demonstrated by Oscar Riddle. The crop glands of pigeons develop periodically and begin the production of the so-called crop milk precisely at the time their young are hatched. By injections of anterior pituitary extracts rich in the maturity hormone, Riddle was able to cause the development of the crop gland and production of crop milk at pleasure in both male and female adult and immature birds.

Since the pioneer work of Evans and Long, much intensive research has been done and an unusually extensive literature has been created upon the subject of pituitary hormones. Although many conflicting reports are to be found, indisputable evidence of the existence and function of certain of these hormones has been definitely established.

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EPHEDRINE IN ADAMS-STOKES' SYNDROME

J. Edwin Wood, Jr., University, Va. (Journal A. M. A., April 16, 1932), calls attention to the fact that epinephrine has been used with success to abolish the temporary ventricular standstill of Adams-Stokes' syndrome. The transient nature of its action and the necessity for subcutaneous administration represent two palpable objections to this drug. Ephedrine largely overcomes both of these difficulties, as it exhibits an epinephrine-like action over a more prolonged period and may be administered orally. These considerations and three favorable case reports in the literature led the author to the use of ephedrine in an instance of severe Adams-Stokes' disease. After barium chloride had failed, ephedrine by mouth stopped the seizures. Continued oral administration of ephedrine has prevented further attacks over a period of eighteen months.

POST GRADUATE MEDICAL COURSE IN OTOLOGY

L. W. KIBLER

Director Post-Graduate Medical Study University Extension Division

NORMAN

Dr. Erick Ruttin of Vienna, Austria, closed his course in Otology for Oklahoma Eye, Ear, Nose and Throat specialists in Oklahoma City Saturday afternoon, April 30th. Dr. Ruttin was brought to Oklahoma by the University Extension Division for a one week's course at the Medical School. For many years, Dr. Ruttin has been a noted research worker in Otology in Vienna as well as an able teacher. Many American specialists going to Vienna annually have taken his courses. Several Oklahoma specialists had previously had his courses in Vienna.

Dr. Ruttin spoke excellent English and all the specialists agreed that his course was one of the most useful they had ever experienced. His text book upon the ear has been translated into several languages. While at the University Hospital giving his courses, several operations were performed in which he demonstrated his method, particularly in mastoid operations. Dr. H. Coulter Todd was chairman of the clinical arrangements. Dr. Todd is head of the Oklahoma Department of Otology.

This is the fourth course for four consecutive years offered by a Vienna specialist and brought to the University of Oklahoma by the Extension Division. All these courses have been for the benefit of Oklahoma specialists in eye, ear, nose and throat. The group this year expressed a desire for further instruction to be brought from Vienna, advising that they were the most able teachers and possessed teaching ability found no where else in the world. It was necessary for the President of the University to write a special letter of request for the services of Dr. Ruttin, in order to secure for him a leave of absence from the University of Vienna. We found it necessary also to secure a special permit from the Austrian government, allowing him to leave the country. Recent regulations have made this necessary in their country.

This course closed the year's program of medical post-graduate teaching by the University Extension Division. Many courses have been held in county seat towns and cities distributed over the state. The State Medical Association has cooperated and assisted in financing two of the courses with the largest attendance. A total of 952 have come into the courses given by the Extension Division this year. Twenty-one specialists took the course offered by

Dr. Ruttin. The names of those who took the course are as follows:

1. Dr. C. A. Hicks, Wetumka.
2. Dr. C. E. Williams, Woodward.
3. Mr. L. W. Kibler, Oklahoma City.
4. Dr. H. Coulter Todd, Colcord Bldg., Oklahoma City.
5. Prof. Erick Ruttin, Vienna, Austria.
6. Dr. H. C. Childs, Medical Arts Bldg., Tulsa.
7. Dr. C. B. Barker, Guthrie.
8. Dr. G. C. Webb, Russellville, Arkansas.
9. Dr. L. C. Kuyrkendall, McAlester.
10. Dr. T. G. Wails, Medical Arts Bldg., Oklahoma City.
11. Dr. W. C. Miller, Guthrie.
12. Dr. L. C. McHenry, Medical Arts Bldg., Oklahoma City.
13. Dr. E. C. Mead, Gainesville, Texas.
14. Dr. W. O. Quiring, Hutchinson, Kansas.
15. Dr. H. S. Browne, Ponca City.
16. Dr. D. W. Miller, Blackwell.
17. Dr. W. A. Kriesel, Little Rock, Arkansas.
18. Dr. P. F. Herod, El Reno.
19. Dr. L. F. Cailey, Medical Arts Bldg., Oklahoma City.
20. Dr. T. R. Lutner, Lawton.
21. Dr. M. K. Thompson, Muskogee.
22. Dr. J. C. Janney, Dodge City, Kansas.
23. Dr. A. C. McFarling, Shawnee.
24. Dr. F. B. Hicks, Medical Arts Bldg, Oklahoma City (was absent).

PERIPHERAL NERVE PARALYSES FOLLOWING USE OF VARIOUS SERUMS: REPORT OF CASE AND REVIEW OF LITERATURE

Forest Young, Rochester, N. Y. (Journal A. M. A., April 2, 1932), reports the case of a man, aged 40, who was given tetanus antitoxin following a small injury. Severe serum disease ensued three days later. Three days after the onset of serum disease he began to have severe pain in both upper extremities and, to a lesser extent, in the back and legs. Seven days after the beginning of serum disease he noted weakness of the right arm with diminished sensibility. Six weeks after the serum disease he had an evident paralysis of the axillary nerve, with muscular atrophy and complete reaction of degeneration. After some three months of daily massage and abduction in a splint feeble motions of the midsection of the deltoid muscle could be made out and the muscles appeared less atrophic. The author calls attention to the fact that there seem to be two clinical pictures which may follow serum injection. The first, and probably the more common, is that of injury to the peripheral nerves. In this group the patient receives an injection of serum often for the first time. In from four to eight days, he usually, but not invariably, has a serum reaction of an intense degree. In from two to three days more, severe pain is experienced in one or both of the upper extremities with pain of a lesser degree in other parts of the body. In another two or three days, weakness of one of the upper extremities is then noted. Either this is followed by gradual complete recovery extending over a period of a month, or in about six weeks muscular atrophy and reaction of degeneration to electrical stimuli are noted. The prognosis in the latter group is only fair, incomplete recovery being the rule. The cases in the group showing signs of involvement of the central nervous system are on the whole more serious as regards life. The usual clinical course seems to be as follows: The patient receives serum, generally intraspinally, in repeated doses. After a time, varying from three days to a month, and without warning, another injection is followed by a severe reaction. This is manifested usually by a generalized urtcarial eruption, which is followed in a few hours by convulsions, opisthotonos, coma, high irregular pulse, irregularity in respirations, and possibly death. The patient, however, may recover and, if so, recovery is usually complete. If the cord is involved there may be, of course, residual paralysis and atrophies as in poliomyelitis. The paraylses following vaccines are too few to afford much in the way of conclusions. In general, they seem to be distinguished by the fact that they are not accompained by serum disease, are much slower and more gradual in onset and do not necessarily show a predilection for the upper extremities. The etiologic theories considered are those of constriction of the nerves by perineural edema and direct toxicity of the serum for ganglion cells or their processes. Prognosis is determined by the occurrence of atrophy. In those cases in which atrophy is not noted in from six weeks to two months, the prognosis is good. In cases in which atrophy occurs, the prognosis is poor. Peripheral nerve paralysis following the use of serum is, however, so rare that it should in no way influence the use of prophylactic serums but should be regarded as one of the hazards of so doing, and the patient should possibly be warned of rare untoward results.

SUBPHRENIC ABSCESS

D. C. Elkin, Atlanta, Ga. (Journal A. M. A., Oct. 31, 1931), advocates the transpleural operation, done in two stages, as the safest and most direct approach for abscess above the liver. Under procaine or nitrous oxide and oxygen anesthesia about 2 inches (5 cm.) of the eighth and ninth ribs are excised in the posterior axillary line. The intercostal muscles with the nerves and vessels are removed so as to give a clear view of the underlying pleura. The costophrenic sinus may have already been obliterated by adhesions due to infection, but even then it is safer to sew the parietal pleura to the diaphragm by eight or ten interrupted sutures of catgut placed in a circle. The sutures are left long and are tied over the gauze packing in order to cause firmer adhesions and safer obliteration of the costophrenic angle. Forty-eight hours later the gauze is removed and the sutures, previously placed, are used for traction. An exploring needle can then be passed with safety through the diaphragm into the subphrenic space. If pus is encountered the needle is followed into the abscess and the cavity drained. If pus is not found with the needle there is no danger in opening the diaphragm and exploring the top and posterior surfaces of the liver with the fingers. When pus is encountered, it should be drained without further exploration or else the protective barrier of the abscessed wall may be ruptured and the infection spread.

ROBERT MORRISON ANDERSON, M. D.
President
OKLAHOMA STATE MEDICAL ASSOCIATION
1932-1933

THE JOURNAL

OF THE

Oklahoma State Medical Association

Issued Monthly at Muskogee, Oklahoma, under direction of the Council.

VOL. XXV JUNE, 1932. No. 6

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Entered at the Post Office at Muskogee, Oklahoma, as second-class mail matter July 28, 1912.

This is the official Journal of the Oklahoma State Medical Association. All communications should be addressed to The Journal of the Oklahoma State Medical Association, 810 Manhattan Building, Muskogee, Oklahoma. $4.00 per year; 40c per copy.

The editorial department is not responsible for the opinions expressed in the original articles of contributors.

Reprints of original articles will be supplied at actual cost provided requests for them is attached to manuscripts or made in sufficient time before publication.

Articles sent this Journal for publication and all those read at the annual meetings of the State Association are the sole property of this Journal. The Journal relies on each individual contributor's strict adherence to this well-known rule of medical journalism. In the event an article sent this Journal for publication is published before appearance in the Journal the manuscript will be returned to the writer.

Failure to receive The Journal should call for immediate notification of the editor, 810 Manhattan, Building, Muskogee, Oklahoma.

Local news of possible interest to the medical profession, notes on removals, changes in address, births, deaths and weddings will be gratefully received.

Advertising of articles, drugs or compounds unapproved by the Council on Pharmacy of the A. M. A., will not be accepted.

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PRINTED BY HOFFMAN-SPEED PRINTING CO., MUSKOGEE

EDITORIAL

THE FORTIETH ANNUAL SESSION, TULSA

Contrary to expectations the attendance at the Tulsa meeting was much better than had been expected. Due to the depression it was not believed the attendance would be anything approaching normal; more than 470 physicians attended the meeting.

The commercial exhibit space was completely full; the scientific exhibit space fairly well filled. With few exceptions Sections and meetings started on time and most of the Sections completed their work within the alloted time. The General Scientific Sections were well attended and gave general satisfaction. With few exceptions there were no complaints as to any phase of the meeting. The writer has been advised that our neighbor, Missouri, had an attendance of only 300; comparing the population of the two states, the medical profession of Oklahoma is certainly to be commended upon its splendid attendance upon this occasion.

The outstanding actions affecting members and their future procedure taken by the House of Delegates was as follows:

> A change in the By-Laws, permitting any physician temporarily on service in the State, in any Federal Governmental position, and who practices ethical medicine to become a member of any Society where he may be located, and after due application. It was also provided that hereafter on the first day the chairmen of the Sections shall name nominating committees of three members who shall report their nominations at the next meeting of the Section, and in addition thereto nominations shall be permitted from the floor.
>
> It was also provided that in addition to the present Sections on General Surgery, General Medicine, and Eye, Ear, Nose and Throat, there would be added two Sections—one on Urology, Syphilology and Dermatology and one on Obstetrics and Pediatrics.

—o—

GASTRIC AND DUODENAL ULCER

This is a subject of importance to practically every practitioner of medicine, for the patient calls upon nearly every branch of medical man for relief. The symptoms cover such a wide range, presenting so many variations from time to time that diagnosis is a matter of difficulty. Even those presenting clear cut, and what are thought to be positive symptoms, may upon abdominal incision and examination not disclose the presence of ulcer.

Richard H. Miller[1] states "the problem of the causation of peptic ulcer seems as far from solution as ever, though intriguing facts are constantly being brought to light. Let me recall to your attention that gastric ulcers occur on the lesser curvature, usually near the pylorus, benign ulcer never occurs on the greater curvature, and duodenal ulcer is usually within an inch of the pylorus, where the duodenal mucous membrane first comes into con-

1 New England Journal of Medicine, Vol. 206, May 5, 1932.

tact with the acid chyme expelled from the stomach."

"Schultz, regarding the etiology, presents a study of 30 postmortem specimens, and he states that the lesion may be the direct result of infarction due to arterial disease, with embolism, or thrombosis; he states that the ulcer progresses because of secondary infarcts in its floor, and that similar lesions can be found elsewhere in the body. One of the most striking facts about peptic ulcer is its seasonal recurrence, and Einhorn, in an exhaustive study of 800 patients finds the greatest number of recurrences in September and May; diet, pressure, and psychic trauma bring on some recurrences, though in 25% of all the cases the cause of return of activity could not be determined." It is noted that Abyssinians, who eat huge amounts of cayenne pepper, afford occasion for speculation. These people have a high incidence of ulcer.

We are not concerned so much with the treatment of these conditions except to say that it is pretty generally accepted that at first, and probably for a long time medical treatment is indicated, but certain complications, such as hemorrhage and occlusion, due to scar formation as evidenced by symptoms plus thorough radiological study, are as a rule positive indication for operation. The role of focal infections is not to be overlooked, as such cases should have every discoverable focal infection attended to. In this connection you will recall that Stuart McGuire, with the abdomen open and in the presence of a moderate duodenal ulcer does not operate upon the ulcer but often removes a coincident diseased appendix and then refers the case to the internist for medical treatment of the ulcer. This speaks volumes as to McGuire's idea of focal infection bearing an important role as to causation and continuation.

It goes without saying that in some Sippy powders, diet and etc., may be carried to extremes; this especially applies to those cases that show evidence of rather constant or recurrent hemorrhage. If medical treatment cannot soon control this hemorrhage, though they are small in volume, sooner or later the patient may become practically exsanguinated, "bled-white" from the constant loss of blood, when the patient is then in a dangerous condition for he may die from a continuation of the hemorrhage or be a very poor surgical risk. Probably every one of these cases should have the advantage of consultation between the internist and surgeon with both bearing in mind the limitations of medical treatment and the imperative demand for surgical intervention under certain conditions.

WHEN COSMETICS BECOME MEDICINE

The Food and Drug Administration has noted a recent material increase in the number of manufacturers who are labeling cosmetics with claims for the prevention or cure of disease. The Administration has ruled that when such claims are made these cosmetics become at once subject to action under the Federal Food and Drugs Act.

Tooth pastes are sometimes labeled as antiseptics or as cures or preventives of diseases of the mouth. Some manufacturers represent face creams as having power to cure pimples and other skin diseases; others label hair dressings as hair restorers, and shaving soaps as antiseptics or destroyers of disease germs.

The Administration makes the following statement: "Reliable dental opinion holds that no tooth paste, regardless of its composition, can truthfully be represented as a cure or a preventive of pyorrhea and certain other oral diseases. Physicians regard only such preparations as are tonics for other parts of the body as tonics for the hair. Pimples may be a symptom or the result of a variety of diseases, many of them serious, for which face creams do not constitute adequate treatment."

TRANSACTIONS OF THE FORTIETH ANNUAL SESSION OKLAHOMA STATE MEDICAL ASSOCIATION, TULSA, MAY 24, 25, 26, 1932

THE COUNCIL
MAY 24, 1932, 4:00 P. M.

Called to order by the President, Dr. H. C. Weber, Bartlesville.

The President appointed an Auditing Committee, consisting of Drs. F. M. Adams, Vinita, and Frank H. McGregor, Mangum.

Prior to this meeting a Credentials Committee, composed of Drs. McLain Rogers, Clinton; W. A. Howard, Chelsea; and Charles J. Woods, Tulsa, had been appointed.

Present—Doctors: H. C. Weber, President, Bartlesville; R. M. Anderson, President-Elect, Shawnee; C. A. Thompson, Secretary-Treasurer-Editor, Muskogee; Paul B. Champlin, Enid; J. C.

Ambrister, Chickasha; LeRoy Long, Oklahoma City; Frank H. McGregor, Mangum; F. M. Adams, Vinita; J. S. Fulton, Atoka; W. M. Gallaher, Shawnee; W. A. Howard, Chelsea; O. E. Templin, Alva, Councilors.

Minutes of the former meetings passed and approved without reading as they had been previously published.

Mr. F. F. Alexander, Dallas, Texas, representing the United Mutual Fire Insurance Company, of Boston, requested endorsement of his Company. Moved by Dr. Long, and seconded by Dr. Willour, and carried, "that it is not within the province of the Oklahoma State Medical Association to undertake such matters," therefore no action was taken.

The Auditing Committee reported as follows: "We have this day examined the books of the Oklahoma State Medical Association and the certified audit attached, and to our best belief and knowledge find them correct." Signed, Dr. F. M. Adams, Chairman, and Dr. Frank H. McGregor. The report was accepted and approved.

No action was taken with reference to the suggestion that the body go on record as to dissemination of contraceptive advice.

Dr. L. S. Willour, presented charts and entered into detailed explanation of the Post-Graduate services being rendered by the State Medical Association, in connection with the State University. It was reported that 749 physicans attended the various meetings. It was the concensus of opinion that the work was highly beneficial to the profession at large and should be continued. It was moved, seconded and carried, that $700.00 be appropriated to cover the share of the Oklahoma State Medical Association in this work for the coming year.

It was also moved and seconded that the Secretary be directed to contact the Committee on Medical Education and the Librarian of the American Medical Association with a view to the possibility of establishing an exchange of moving picture films as between States. The idea of the discussion was that this service should be best obtained through the offices of the A. M. A., rather than through direct exchange between this and other States.

Dr. R. M. Anderson discussed Sections and after a general discussion a Committee was directed to report to the Council the suggestion that there be added to the present Sections on General Surgery, General Medicine, Eye, Ear, Nose and Throat, two new Sections, one devoted to Urology, Syphilology and Dermatology, and one to Obstetrics and Pediatrics. This motion carried.

The motion was then made and adopted that the Council adjourn, to meet again upon the call of the President, if found necessary.

C. A. THOMPSON,
Secretary-Treasurer-Editor.

HOUSE OF DELEGATES
TULSA, MAY 24, 1932, 7:30 P. M.

Called to order by the President, Dr. H. C. Weber, Bartlesville.

Roll call of Degelates by counties, was ordered by the President, resulting as follows:

Alfalfa County—Dr. Z. J. Clark, Cherokee.

Carter County—Drs. F. W. Boadway, Walter Hardy, Ardmore.

Creek County—Dr. W. P. Longmire, Sapulpa.

Haskell County—Dr. R. F. Terrell, Stigler.

Kiowa County—Dr. H. C. Lloyd, Hobart.

Harmon County—Dr. W. G. Husband, Hollis.

Lincoln County—Dr. W. D. Baird, Sr., Stroud.

Logan County—Dr. C. S. Branson, Coyle.

Marshall County—Dr. J. L. Holland, Madill.

Mayes County—Dr. Carl Puckett, Oklahoma City.

McIntosh County—Dr. W. A. Tolleson, Eufaula.

Muskogee County—Drs. S. D. Neely, Ed White, E. H. Coachman, Muskogee.

Noble County—Dr. B. A. Owens, Perry.

Oklahoma County—Drs. A. L. Blesh, A. B. Chase, J. T. Martin, L. J. Moorman, P. M. McNeill, C. M. Pounders, Horace Reed, W. J. Wallace, W. K. West, Oklahoma City.

Osage County—Drs. C. K. Logan, Hominy, Divonis Worten, Pawhuska.

Ottawa County—Dr. F. W. Meriwether, Miami.

Pawnee County—Dr. C. H. Haddock, Pawnee.

Pittsburg County—Dr. B. B. Kies, North McAlester.

Pottawatomie County—Drs. T. C. Sanders, John A. Walker, Shawnee.

Pushmataha County — Dr. D. W. Connally, Clayton.

Rogers County—Dr. W. S. Mason, Claremore.

Seminole County—Dr. T. H. Ware, Seminole.

Stephens County—Dr. D. Long, Duncan.

Tillman County—Roy Fisher, Frederick.

Tulsa County—Drs. A. Ray Wiley, Calvin Johnson, Henry Browne, C. H. Haralson, Fred Bolton, Tulsa.

Washington County—Drs. J. V. Athey, H. G. Crawford, Bartlesville.

Officers: Drs. H. C. Weber, Bartlesville, president; R. M. Anderson, Shawnee, president-elect; C. A. Thompson, Muskogee, secretary-treasurer-editor.

Councilors: Drs. F. H. McGregor, Mangum; Paul B. Champlin, Enid; LeRoy Long, Sr., Oklahoma City; J. C. Ambrister, Chickasha; W. A. Howard, Chelsea; F. M. Adams, Vinita; L. S. Willour, McAlester; J. S. Fulton, Atoka.

Reading of the minutes for 1931, passed and approved as printed in the June Journal, 1931.

Dr. W. A. Tolleson, Eufaula, and Dr. L. S. Willour, McAlester, called attention to the necessity of a Resolutions Committee. Dr. Willour moved that the President name such Committee; the motion carried. The Committee consisted of Drs. L. S. Willour, Chairman, S. D. Neely, Muskogee, A. B. Chase, Oklahoma City.

Motion made and carried that the report of the Delegates of the A. M. A., be forwarded to the Journal for publication. Upon the motion of Dr. J. S. Fulton, Atoka, it was moved that the report be read and later published in the Journal. This motion carried. Dr. W. Albert Cook, Tulsa, read

the report and it will be published in the Journal at a later date.

The Resolutions Committee passed the following:

> "That the President appoint a Committee to report to the 1933 House of Delegates their investigation of the laws of Oklahoma regulating the practice of medicine, and the feasibility of presenting before them a bill regulating the practice of medicine in Oklahoma somewhat similar to the Oklahoma State Bar Act regulating the practice of Law."

The motion was adopted.

The following proposed change to the By-Laws was presented:

> "After Section III, Chapter 1, Membership, add Section IV; Any County Society may admit to membership any Medical Officer detailed to duty in the State of Oklahoma from any branch of the Medical Service of the United States Government."

(While this motion was voted upon, and then carried, it was then decided the matter would have to come up before the House of Delegates at the next meeting, May 25th, 8:00 A. M.).

A Resolution was proposed as follows:

> "Whereas it is evident that any reduction in the personnel of the Medical Corps of the United States Army would make it impossible to render efficient medical service to the Army of the United States,
>
> And Whereas, with any reduction of the Medical Corps of the Army it would become necessary to discontinue training and instruction of the Organized Medical Reserve, and the Medical Corps of the National Guard,
>
> And Whereas, we are cognizant of the deplorable unpreparedness to meet the medical situation at the outbreak of the World war,
>
> And Whereas, there is in Oklahoma at present a component of active and energetic Medical Reserve Officers,
>
> Therefore be it resolved that we, the House of Delegates of the Oklahoma State Medical Association in regular session assembled, do petition our delegation in Congress to oppose any action which would in any way decrease the personnel of the Medical Corps of the Army."

Discussion of above resolution as follows:

Dr. A. L. Blesh, Oklahoma City: "In these times the Army must cut as well as everybody else. Everyone else is cutting, and I don't see why the Medical Corps of the Army should be placed before the citizenship. I served in the World war and I would be willing to go again. I have not asked one cent from the Government since. I do not believe that Resolution is kind. I do not believe it is good. I do not believe it will set right, and therefore I ask that the resolution be not accepted."

Dr. L. S. Willour, McAlester: "If I may discuss this Resolution I would say this: The Bill which was passed making appropriation for the Navy makes an allowance of nine hundred Medical Officers of the Navy, which is almost as many as there are Medical Officers in the Army at this time, with half the personnel to serve. It is necessary to have in the neighborhood of one thousand Officers in the Navy to serve one-half the personnel, it appears that it would be necessary to keep enough Medical Officers in the Army to serve the Army personnel. Not only that, but Medical Officers of the Army do a great deal of civilian work as well—in the Philippines and Panama a great deal of that is being done. The situation of the Medical Officers of the Army is a little different than that of Medical officers of the Navy at this time because of the professional service that is being rendered to the citizenship outside of just the United States Army. A cut in the personnel would mightily handicap the work."

Dr. Thompson: "How many would the reduction in personnel cut out?"

Dr. Willour: "Major French, will you answer that question?"

Major Sanford W. French, U. S. A. Ft. Sam Houston, Texas: "282 Medical Officers out of the number at the present time."

Dr. Thompson: "All it would amount to then is a saving of one-fourth of the salaries now being paid."

Dr. Willour: "I happen to be one of the Officers, and I had the same spiel handed to me that the rest of them got. 'Why don't you come in the regular army? It will assure you a living and assure you retirement with pay, and it is just about the best insurance you can get.' These men are the very ones who had that talk given them and went into the Army expecting that would be the situation, and now after these fifteen years they are having to get into competitive work in the medical profession. The average age of these men is from forty-five to fifty. It is a horrible handicap for a man of that age to enter regular practice of medicine after putting in probably three-fourths of his time in the Army in administrative work."

Dr. Thompson: "What would the saving be to taxpayers if this is put into effect?"

Major French: "It would save perhaps $280,000.00.

Dr. Blesh: "Nobody wants to cut. Everybody in private life is getting it, and I don't see why it shouldn't be the same in the Army?"

Major French: "I might state that the Air Corps and the legal profession have been excluded from the proposed cut."

Dr. A. Ray Wiley, Tulsa: "What will the status of those officers be if they are let out?"

Dr. Thompson: "They will still draw three-fourths pay and can be called back if needed."

A standing vote was taken, resulting in 20 in favor of and 23 against the Resolution.

RESOLUTION

> "The Council recommends that the Chairman of each Section shall appoint a nominating Committee of three members of the Section at the termination of the

last meeting of the Section on the first day of the Scientific Work. This Committee shall present the names of two members for the positions of Chairman, Vice-Chairman and Secretary respectively, as the first order of business at the first session of the second day, at which time the election of these officers shall take place, it being understood that in addition to the nominees of the Committee nominations may be made from the floor."

Dr. Horace Reed, Oklahoma City: "This matter was brought up in the House of Delegates a year ago. You remember that there was considerable complaint made because of the lack of balance in the programs. In each section there was considerable disagreement. Now we have a committee that was supposed to do the balancing act and was supposed to be responsible for the Section program. In order to put the responsibility where the by-laws or constitution, or whatever it is provides for, we passed a resolution at that time empowering this Committee to appoint section officers, thinking that would give them authority to put on a balanced program. There has been considerable dissatisfaction about that. I believe this will help. I am in favor of that resolution".

Dr. W. S. Mason, Claremore: "It seems to me that every bit of power that members of the Association have is being taken away from them. They have no right whatever to select anything in their own section. I am against the motion."

Dr. Thompson: "I believe the gentleman from Rogers County misunderstands the motion. The Chairman of each Section appoints a nominating committee, who in turn select the nominees for vote by the Section."

Dr. Mason: "It still doesn't decentralize the thing."

Dr. LeRoy Long, Oklahoma City: "This resolution would make it possible for each Section to select its own officers. I believe the doctor doesn't quite understand its intent. The purpose is to have the Committee think carefully over the members of the Section on the first day and then report the next day, and any nomination may be made from the floor. The Section will vote on these two men or three men or whatever number may be nominated from the floor. I am perfectly willing to change it in any possible way that would satisfy the democratic requirements of the Society."

Dr. Mason: "Did the Resolution there as read say anything about being able to nominate from the floor?"

Dr. Willour: "It being understood that in addition to the nominees of the Committe nominations may be made from the floor."

Dr. Mason: "I withdraw my objection."

Motion carried.

Dr. Weber: "Dr. Willour, have you something else to report to the House?"

Dr. Willour: "I have been asked to report on the work that has been done in the Medical Extension Post-Graduate Course and the motion picture films. The University Extension Department very kindly prepared a map to show this, (demonstrating map). This will show the work that was done. You have probably noticed the report of the Secretary relative to finances that $700.00 was spent this year for post-graduate work and $350.00 that was contracted for last year. The courses in gynecology and obstetrics are marked on this map by green dots. These were held at five centers with a total attendance of 331. The course in surgical diagnosis was also held in five centers with an attendance of 418. The cost to the State Medical Society was $350.00 for each of the two courses, the County Medical Societies where the courses were held meeting any other expense. A total of 749 attended, making the cost to the State Medical Society less than a dollar a head. Another course was put on by the Extension Department, the State contributing nothing to the expense, the members of the County Societies contributing $10.00 apiece—that was put on in the northeastern part of the State. Ninety-one took another course at Oklahoma City and forty-one attended a course in Ear, Nose and Throat. As Chairman of the Committee that has been interested in this post-graduate work I feel that our money has been well spent in reaching 749 at a cost to the Society of $700.00. $700.00 has been put in the budget of the State Society to carry on this work for another year.

And now just a word relative to the motion picture films. This map will show the centers in which these motion pictures have been shown. I can see no reason why they have not been more widely circulated. We have now fifteen films. There are four reels on forceps delivery, three on eclampsia, two on acute appendicitis, one on benign prostate hypertrophy and three on infections of the hand. These have been seen by 850 physicians throughout the State as near as we can figure, giving each County Society its membership. Probably more doctors than that have been present—many times there is someone from the outside. More publicity should be given to the films. Probably more County Medical Societies would use them if they knew just how to get them. The only cost is the expense to and from Norman, and the only requirement that they be shown by a licensed operator. If the County seat does not have a picture show with a licensed operator, one can be sent out from Norman, the cost simply being his expense on the road. That is all it will cost. Or for $15.00 or $20.00 they will exhibit these films, bringing their own machine and putting them on. I am going to suggest that more publicity be given them in the Journal and see if more of the County Societies will not become interested in this method of instruction."

The question was asked if one or two films on medical diagnostic methods could not be obtained.

Dr. Willour: "I recommend that no more films be purchased until these have been more widely circulated."

Dr. Weber: "Will you tell the House the proposition about exchanging films?"

Dr. Willour: "In regard to the exchange of films and what we ought to do in post-graduate work and the use of films, while at the meeting of the American Medical Association in New Orleans I discussed with the librarian the matter of film exchange incorporated in the library of the American Medical Association. There are some other States that own motion picture films, and the purpose is to arrange for a film exchange with

the American Medical Association so that we may circulate them for a year or two and then exchange with one of the other States to save purchasing new films."

Dr. H. G. Crawford, Bartlesville: "It was suggested that the films have not been well enough used. The ones that came to Bartlesville seemed to have been too well used."

Dr. Thompson: "How was that?"

Dr. Crawford: "They were not good films."

Dr. Thompson: "All those I have seen were good films. Those in Muskogee were satisfactory."

Mr. Kibler, Oklahoma University Extension Department: "You were probably having trouble with your machine."

Dr. Weber: "Is there any further business?"

Dr. White, Oklahoma City: "I move in behalf of the Urologists that they be allowed a separate section, taking in other specialties with them, to be selected by the Council, such as Dermatology or Syphilology. I think the Urologists should be allowed a separate section."

Dr. Wallace, Oklahoma City: "In behalf of that motion, I wish to say this, the Urologists of the State, and especially those in Oklahoma City and vicinity, feel that it would be a step towards general improvement, not only to the Urologists but medicine involving the State in general. We have a plan, we think, worked out to this extent that we feel that we can put on a better section than has ever been put on before. We want to have one that is far-reaching, one that can be discussed from the standpoint of medicine and from the standpoint of pediatrics, one that can bring something that is good before the Association. At the present time there is very little interesting to them. Occasionally a few of our Urologists visit a little bit. We want some time devoted to that particular section. We think we can have a good and interesting section and one that will be instructive. If you will give us this section on Urology we will be glad to combine Syphilology or Dermatology or Radiology or whatever you want."

Dr. Thompson: "Will you submit that to the Resolutions Committee, putting it in form to cover the whole field? I am in favor of anything that will improve the Society."

Dr. White: "We will submit it to the Resolutions Committee."

Dr. Weber: "Then the motion is withdrawn."

Dr. Moorman, Oklahoma City: "I am interested in this discussion. At the present time we have some independent organizations. They come presumably to the State meeting but get through the first day or the day before the meeting and some of them leave. Wouldn't it be better to have four or six or eight sections and have these men here than to have them organize separate sections independent of the State Association and identified indefinitely so far as the State Organization is concerned? That gives us something to think about."

Dr. Thompson: "If you could get them to stay three days that would be fine."

Dr. J. A. Walker, Shawnee: If a group gets together by themselves they are instructing only themselves. I think the general bunch ought to be given a little of all the material. One bunch has been here and had their meeting and gone home. They didn't get as much as if it had been prolonged through the whole meeting. All of these fellows don't have the same ideas. If we don't unload on them and they don't unload on us we won't know anything about it. We ought to get everything we can. I am a specialist on the skin and underlying structures, but I want to learn something about all of it."

Dr. Weber: "The danger in this Society as far as specialists are concerned is this—if the Organization separates it won't be long before you will have no State Society. I believe these sections should be divided up so that they will be interesting and instructive, and it is entirely up to this body here to regulate that part. That is your duty and the rest of the organization will have to abide by what you say."

Dr. Moorman, Oklahoma City: "This is a difficult problem to solve. It has been up before. I wonder if we can't compromise. Have short section meetings. Let these men interested in a special work have their separate section and then have general session with the balance of the Organization, bring something from each separate section into the general section. We have no one separate section which is not affiliated with this Association. Why not consider this?"

Dr. Thompson: "I would like to speak from a good many years of experience as to the sections. It is my memory that when we first started we hardly had any sections. We just had meetings. Papers of all sorts were mixed up indiscriminately. I do not recall how we got sections. The House of Delegates made them and provided for their functions. I can see how urologists are as intensely interested in their work as the eye, ear, nose and throat men, or the surgeons or anyone else, but I want to remind you that most of the doctors in the State are not doing any one thing, they are general practitioners, and they are the men we ought to reach and up-build. There is no use telling each other what we already know. The surgeons know how to do gall bladder or appendix or bone operations. You would laugh at me, Dr. Blesh, if I would tell you some of the things I think are particularly fine. We formerly had five sections. Once I found as low as twelve people in one of these sections, each one telling the other ones exactly what they all already knew. The object of the meeting is dissemination of instruction. The man behind the plow of the whole is the general practitioner. He is the one people see when they are sick. He is the man to find out whether this is diphtheria, scarlet fever, pneumonia, or appendicitis. They don't go to specialists. They see their family doctor. We can add another section. It won't hurt. We might have one day or part of two days for general scientific sections in which we could try to spread over all subjects or many subjects. The scientific work committee has hardly had a year to work out its problems. It was left to us last year to select the Section chairman. We might have made mistakes. In some cases we didn't and in some we possibly did. I don't see how in two days they are going to get all the territory covered. You have got to stay longer or change the system."

Dr. Weber: "There has been some talk about trying to run this the same as the big meetings

in Kansas City, have it all just in one session. You could do that if you didn't have any discussion, but if we had discussion that would not be possible. That would be the ideal way to get all the papers before all the members, but we figure in a place of this kind that wouldn't be practical at all. We will just have to have it in sections, I guess."

Dr. Moorman: "We have a general Scientific Committee now that tries to balance our program."

Dr. Thompson: "The attempt was made. We start at eleven o'clock in the morning on sections."

Dr. L. J. Moorman: "Would it not be possible to have general sessions on two mornings and have a balanced program touching all the specialties with selected papers and whoever the committee selects to give them, and in the afternoon have as many sections as you wish? Each afternoon each section must complete its work, and in that way you would have it complete in two days. I would like to make a motion to that effect if it is in order. The committee on scientific work could arrange the general sessions on both mornings. The afternoons would be devoted to the different sections, and each section must complete its work."

Dr. Horace Reed, Oklahoma City: "We have general scientific sessions each morning."

Dr. Thompson: "What he is trying to get at is to divide up in smaller sections."

Dr. W. J. Wallace, Oklahoma City: "It seems to me that we could have one day for the various sections and then the following day have a general session merging with the other sections. In order for these State Medical Societies to succeed they must adopt some technique such as succeeds in the clinical societies that are held in various places. These are held, as you all know, by general session. Scientific sections have as many different sections as needed. There are no discussions and in that way they can get through. Unless our Society adopts some of these methods we are going to have trouble. They are going to come here and get through and go home."

Dr. Thompson; "Please put this in writing and take it to the Resolutions Committee."

Dr. W. K. West, Oklahoma City: "I would like to suggest regarding the present program it has been rather disconcerting having the surgical section and the medical section running for two days. It is a question as to what paper will be on the second day."

Dr. Thompson: "That is impossible to say."

Dr. West: It is the first time I have ever seen this done. There are a great many men who can come only on one day. Perhaps they are interested in one or two papers. They do not have any idea what day they will be here. I will have to either go home and come back Thursday or stay tomorrow. That is one thing. Another thing is about the invitation to men who live in adjoining States. A long time ago we had a rule against that. I think that rule should be put in effect again. If we want men just out of the territory we can get them, or if we want men from out of town we can get them. The men from states not adjoining would be better drawing cards because they are better known."

Dr. Thompson: "You will have to make a resolution and give it to the Chairman of the resolutions committee that we do not extend invitations to doctors from the states adjoining the State of Oklahoma. We could try it several years and get along fine, in my opinion."

Dr. West: "I make a motion that the invitations to out-of-State doctors not include those States adjoining Oklahoma, providing that we do not exclude any man in Public Health or Government Service."

Motion seconded by Dr. Blesh.

Dr. Reed, Oklahoma City: "I can't make up my mind whether I approve of that motion or not. I think the Committee on Resolutions ought to think about that over night. It is a delicate situation."

Dr. Phil McNeill, Oklahoma City: "Does that resolution mean that if we have a good man in an adjoining State we cannot have him at our meeting?"

Dr. Fulton, Atoka: "That is what it means. It means we can't have Dr. Jackson of Kansas City, past president of the American Medical Association, or Dr. Cary of Dallas, President-Elect of the American Medical Association. These men cannot be invited because they live in states adjoining Oklahoma. I would be opposed to the motion."

Dr. Moorman, Oklahoma City: "I am opposed to it. I can't see any reason for such a discrimination."

Dr. A. Ray Wiley, Tulsa: "I think that is carrying it entirely too far."

Dr. E. H. Coachman, Muskogee: " I move that we table Dr. West's motion indefinitely."

Motion seconded, voted upon, and carried.

Dr. Wiley: "Do you want the reports of the committees tonight or in the morning? I am referring to the report of the committee on Medical Economics."

Dr. Thompson: "That has been circulated. Everybody has it, if there are some points that the committee would like to bring up, we will have it.

Dr. Weber: "There is just this about it. There is so much stuff to take care of that the more we get rid of the better. If the House of Delegates wants to hear this let's have it."

Dr. Fulton: "If we have to hear them, let's hear them."

Dr. A. Ray Wiley: "There is a portion of the report on the Committee of Economics that is going to take a little time. It is getting late now, so perhaps we had better not have it tonight, but there is some of it I do want the privilege of discussing at some time during this meeting."

Motion to adjourn made and seconded. Motion carried.

C. A. THOMPSON,
Secretary-Treasurer-Editor.

HOUSE OF DELEGATES
TULSA, MAY 25, 1932, 8:00 A. M.

Meeting called to order by the President, Dr. Henry C. Weber of Bartlesville.

Roll call by Dr. C. A. Thompson of Muskogee, Secretary, and Dr. W. A. Howard, Chelsea.

Dr. Horace Reed, Oklahoma City: "Mr. Chair-

man and members of the House of Delegates; I should like to ask your unanimous consent to present a resolution, so that the members knowing about it may be thinking about it. I should like to ask your consent to do that."

Vote taken, and permission granted.

RESOLUTION

"Whereas, the State law which creates the "Soldiers' Relief Commission" provides or is interpreted as providing, that any honorably discharged veteran of the World war is entitled to hospitalization and medical service at the expense of the taxpayers of the State for sickness or disability of non-service connection, and

Whereas, persons who are able to pay for hospital care and professional service are being cared for at the expense of the taxpayers of the State under this law, and

Whereas, this practice unjustly adds to the burden of the taxpayers of the State, is discriminatory in that all citizens are not accorded the same treatment, and takes from the members of the Medical profession a certain income which justly should go to them, therefore

Be it Resolved by the House of Delegates of the State Medical Association that the practice of the Soldier Relief Commission in giving hospitalization to those who are able to pay is unfair and unjust and is not a proper function of the State, and

Be it further Resolved that the Officers and Council of the State Association be urged to take such steps as is proper to inform the Medical profession and the people of the State of the situation as herein set forth to the end that the law may be repealed as soon as possible."

Dr. Weber: "You do not want to put that resolution now? The first order of business is the election of officers. Nominations for president are now in order."

Dr. W. A. Tolleson, Eufaula: "I want to nominate for President a man who is actively interested in organized medicine, a successful physician, a gentleman, trustworthy and worthwhile. It gives me great pleasure to recommend for your consideration Dr. T. H. McCarley of McAlester, Oklahoma."

Dr. G. L. Johnson, Paul's Valley: "I nominate for President Dr. D. Long of Duncan.

Dr. J. S. Fulton, Atoka: "I want to second the nomination of a man I think has had the proper training for President. When he came to Oklahoma he came to the proper part to get the ground floor in making a mighty good doctor. He came down there in that part of the country in which the influence and environment was mighty good for him. Dr. LeRoy Long came from there, and Dr. Willour, and some of these other fellows. They all got their start down there in Atoka County. That is where Dr. Willour and Dr. McCarley came from. When they get so big they are better doctors than the old man they get shoved out of Atoka County and have to go somewhere else. They go out and make good. I second the nomination of Dr. McCarley."

Dr. Walter Hardy, Ardmore: "I second the nomination of Dr. Long."

Dr. Ray Wiley, Tulsa: "I move that the nominations be closed."

Motion seconded, voted upon, and carried.

Dr. Tolleson: "May I ask that the names of the candidates be announced."

Dr. Thompson: "Dr. T. H. McCarley and Dr. D. Long. Members of the House of Delegates are ineligible for election. Dr. Long is a member of the House of Delegates."

Dr. G. L. Johnson, Paul's Valley: "I had not thought of that. I withdraw my nomination, that being the case."

Dr. W. A. Howard: "I make a motion that Dr. McCarley be nominated by acclamation."

Dr. Tolleson: "I second that motion."

Dr. Weber: "Dr. Long has no vote. Are there any other nominations?"

It was moved and seconded that nominations be reopened. Motion carried.

Dr. J. S. Holland, Madill: "I move that nominations be closed and that we elect Dr. McCarley by acclamation."

Dr. Tolleson: "I second the motion."

Vote taken and motion carried.

Dr. Thompson: "It gives me great pleasure to cast the vote of this body for Dr. T. H. McCarley as President."

Dr. Weber: "Nominations for Secretary are now in order."

Dr. C. K. Logan, Hominy: "I nominate Dr. Claude Thompson of Muskogee."

Motion seconded.

Moved and seconded that nominations be closed. Motion carried.

Dr. Weber: "Dr. Claude Thompson of Muskogee is Secretary."

Dr. Thompson: "You all understand I can't make a speech and I just got up to tell you I can't make a speech. Thank you, though."

Councilors nominated by the Delegates from each District were as follows: District No. 2—Frank H. McGregor; District No. 3—Dr. Paul Champlin; District No. 4—Dr. A. B. Chase; District No. 5—Dr. D. Long, Duncan; District No. 6—Dr. W. A. Howard, Chelsea.

It was moved by Dr. Willour that the nominees for Councilors be elected by acclamation. Motion seconded, motion carried.

Dr. Thompson: "You have two Delegates to the American Medical Association whose terms expire, Dr. W. Albert Cook of Tulsa and Dr. Horace Reed of Oklahoma City."

Dr. Willour: "Mr. President, I would like to present for renomination as Delegate to the American Medical Association Dr. W. Albert Cook of Tulsa."

Dr. A. B. Chase, Oklahoma City: "I would like to present for renomination Dr. Horace Reed of Oklahoma City."

Dr. W. A. Howard: "I move that nominations be closed and that these gentlemen be elected by acclamation."

Motion seconded and carried.

Dr. Thompson: "Dr. W. Albert Cook of Tulsa and Dr. Horace Reed of Oklahoma City have been

elected as Delegates to the American Medical Association for the years 1933 and 1934."

Dr. Weber: "This completes the election. We will now have a report from the Resolutions Committee."

Resolution presented by Dr. S. D. Neeley of Muskogee as follows:

RESOLUTION

"To increase the interest and attendance at the Annual Meeting of the Oklahoma Medical Association, be it Resolved:

1. That the committee on Scientific Work arrange a program for General Scientific Session on each morning two days of the session.

2. That the afternoon sessions be devoted to the following sections (a) General Medicine (b) Surgery and Gynecology (c) Urology, Dermatology, Syphilology and Radiology (d) Pediatrics and Obstetrics (e) Eye, Ear, Nose and Throat.

3. That in the general session there be no discussions.

4. That each section must complete its program in the assigned time.

5. That each presentation in the section meetings be allotted fifteen minutes only and that no discussion be permitted to exceed five minutes.

Committee on Scientific Work to name Officers of new Sections.

Dr. Weber: "The first resolution to be placed is the one Dr. Reed spoke of regarding the Soldier Relief Commission."

It was moved and seconded that this resolution be adopted.

Dr. Reed, Oklahoma City: "Mr. Chairman and members of the House of Delegates, the thing which this resolution touches upon is this—any veteran who has a disability or sickness can upon presentation of evidence of an honorable discharge from the army to the Soldier Relief Commission get admission to the Sulphur Hospital for medical and surgical treatment without cost, irrespective of how much money he may have."

Dr. Thompson: "You would exclude men who are able to pay."

Dr. Reed: "That is it. Personally I would like to see this. The Soldier Relief Commission was established at a time when it was needed. The Federal Government had not yet taken hold of the situation and to take care of the soldiers who were disabled this Commission was established and a law passed whereby they could take care of emergencies and help the soldiers who had no connections, who were stranded, and who had not re-established themselves. This law covered that. It was not intended that it should continue to serve and care for soldiers indefinitely, but it is doing it. Many are being cared for who are able to pay. For example, last fall I operated a man from Tulsa, who had every appearance of living in opulence. He had a gall bladder operation. He wore the finest kind of clothing. He took a private room—I suppose he made up the difference in price. He had a private nurse. His family drove a car finer than I could afford. Yet he was treated without cost because he was admitted by the Soldier Relief Commission. That man was able to pay the hospital and the doctor at Tulsa where he lives. That is ony one example. I don't believe the taxpayers know about it. It is a question of whether we should continue their care and let the other citizens of the State carry the load. I believe fourteen years is a sufficient time for them to readjust themselves so that we can all be on an equal footing. I personally feel that the Soldier Relief Commission of Oklahoma has lived its day, and while I am not advocating that we refuse to admit the man who is not able to pay, I am opposed to caring for those who are able to pay for it. I am bitterly opposed to that and I think we should all be. Two years ago in America there passed a bill which was to give to old soldiers certain privileges at the expense of the Government, but President Hoover waited until the House of Delegates of the American Medical Association passed a resolution opposing such a measure. We are drifting into State medicine, and I am sorry to say that ex-soldiers are largely behind it and are working through the Veterans' Bureau to get State Medicine. These are things which affect us. There are some bitter fights going on in Congress. Special committees of the American Medical Association have been doing some very excellent work, but the fight is going on and on against this immense appropriation for building Veterans' hosptials all over the country for the care of veterans irrespective of service connections in most cases. There are millions of dollars invested in hospitals that are now being foreclosed all over the country. They could have been hospitalized as cheap if not cheaper in those than if these hospitals had not been built. One man at the head was asked this question, 'Now that the peak has been reached what will you do when these immense hospitals are no longer needed?' He replied. 'The times are changing. We are coming to State medicine.' And Oklahoma has lead the way. We are up against facts, and I think we ought to get busy and talk this thing up and decide what we ought to do. Men who are able to pay are being treated without cost for conditions that have no service connection.

Dr. Thompson: "Does the Federal Government pay for those hospitalized in Oklahoma City?"

Dr. Reed: "Only in emergencies."

Dr. Thompson: "That is the only kind they can take."

Dr. Mason, Claremore: "Dr. Reed, did you intend that to cover all hospitals or just the University Hospital?"

Dr. Reed: "All. If they are able pay their way, let them do it."

Dr. Mason: "Ex-soldiers who cannot pay have to be cared for. Would the resolution just exclude those who could pay or do away with it completely?"

Dr. Reed: "The resolution is intended to exclude those who can pay their way. I am not asking that it be done away with completely."

Dr. Mason: "The original intention of the Soldier Relief Commission was to take care of indigent ex-service men. I just wanted to be clear as to what Dr. Reed wanted in his resolution."

Dr. LeRoy Long: "Let us have the resolution read again."

The resolution was again read before the House by Dr. Reed.

Dr. Reed: "Personally I feel the time has come,

fourteen years after the war, when we all ought to be on an equal basis."

Dr. McLain Rogers: "That Relief Commission has served a good purpose in its day. It has met a lot of emergencies in the past year. I have checked these cases in our own hospital, which is allowed $15.00 per week with all other expenses thrown in. It has served a good purpose in some of these cases which were truly emergencies. It is only the abuse and not the use which makes it a bad thing. If only applied to those who are absolutely pauperized it would be a good thing. There is also the question of what you are going to do with the new hospitals which were built after the war. It is going to be a bad situation. We have a Committee from the American Medical Association in rather close touch with the American Legion working this thing out. This resolution is very well put. It is a question of whether the abuse can be stopped. If an ex-service man absolutely pauperized is sent in we ought to care for him."

Dr. Thompson: "Dr. S. D. Neeley was connected with the Veteran's Bureau, and I should like to ask him whether he has any idea of what per cent come in at Muskogee who could pay a doctor or a nurse anything. Once in a while there were some who could, but not often. It is true that once in a while there was a case that stood out like a sore thumb. Men in banks—County and State officials. I would say ninety-eight per cent were unable to pay the hospital expenses for a month."

Dr. Neeley: "They are just as much able to pay as I am."

Dr. Thompson: "That is not the point. The moment you close Sulphur, Okmulgee county and others are going to have to take care of them. It falls back on the local county. Personally, I think we should stop all waste. Sometimes a man is sent from the Rio Grande region for a tonsillectomy or some other minor operation and it costs around a hundred dollars for his transportation to Muskogee and back. I don't think that should be done but I don't know of any practical way to reach it. The question has been raised several times as to whether you ought to make a man commit himself by saying, 'I am a pauper and I want help.' They won't do it. Some will suffer and some will die. There ought to be some way to work this out."

Dr. Neeley: "Personally, I don't think Dr. Reed is more than half right. In the last three to five years there seems to have been a great reaction. There is the hospital in Muskogee, thrown together, built in politics, and the contractors got the money. The hospital building has never been satisfactory to this day. The State of Oklahoma has no more right to treat these men than Muskogee County. Dr. Thompson says they won't sign a statement saying they are paupers —they will sign anything, don't you kid yourself.

I am an ex-service man and American Legion man, but I am not going to belong to the American Legion as long as they are as red as they are. They want everything they can get out of the Government and are just as cold-blooded as can be. I don't think Dr. Reed's resolution goes half far enough. The State has no more right to treat them than the County. We don't need more hospitals—the Veterans' Bureau can handle them. If they haven't got vacancies put them out in the hall. Create vacancies. Let the men get in there. They have a staff of fifteen and can handle a lot of men. Put pressure on the Congressmen. Let the State legislature help out."

Dr. Moorman, Oklahoma City: "I think it is unnecessary to speak with the purpose of creating additional sentiment in favor of Dr. Reed's resolution, but I would like to say just a few words in explanation of the University Hospital's present condition and in connection with the general theme, because I feel it is something which the House of Delegates of the State Medical Association should think about. Dr. Reed did not in his discussion make clear that at the University Hospital we have what is called a clinical rate or basis upon which patients are admitted after a financial investigation, and under which they are supposed to pay fifteen dollars per week and receive medical and surgical care. If it is found that patients can pay or are able to pay, they are not admitted on this basis unless they are already committed by the County Commissioners, having supposedly already had a financial investigation. Now then, we have contracts with the State Organizations which Dr. Reed has mentioned and with the Veteran's Bureau that patients coming under the Veterans' Bureau are fully entitled to the care they receive, although they are paying about half of the cost to take care of them. We as taxpayers make up the deficit. Men coming from the Soldiers' Relief Commission do not have this financial investigation, in other words, we are not free to apply the same method. They are admitted regardless of their financial status on the $15.00 rate. We not only give this free medical and surgical service, but pay taxes to give them hospital care and to take care of the great amount of clerical work that is necessary to take care of these cases. We anticipate the necessity of putting on an extra clerk at the taxpayers' expense to take care of the work connected with it. I personally am not very much afraid of State medicine, but I am very much opposed to extending free services to people who are able to pay for their care, and pay taxes to help support the State institutions. At New Orleans General Jackson whipped the British soldiers, three times as many as he had in his own army, when he was totally and permanently disabled according to the standard which we follow today. He had tuberculous enteritis and concurrent conditions. So far as I know he never asked for anything. I think we have gone very, very far in extending free service, not only to ex-service men, but to men who never saw service, and with the present State government program we are likely to be taking care of ex-service men's grandchildren, or politicians. I do not believe the people of the United States are willing to submit to these conditions. I do not believe we are going to have State medicine, it is time for doctors to wake up to the fact that on account of the mechanical age so many people have had so much leisure thrust upon them that they are spending for everything in the world except medical service. It is in our tradition as a profession to take care of the poor, but it is time for us to get more education over to the people with reference to the rights of the Medical profession, making it possible to preserve our individual integrity in the State. We can't afford to bow our necks and do nothing. We are entitled to a living. If we take care of the poor and sometimes the well-to-do

because they are willing to take the care which they should pay for we won't be making a living. They forget that we are going to be eliminated or placed upon a salary basis which would take out of medicine the spirit and progress. The people should be educated to the needs of our profession. I am heartily in favor of this proposition and hope that it will receive approval."

Dr. B. B. Kies, McAlester: "I am heartily in favor of this resolution that Dr. Reed introduced except for one thing—it doesn't protect that man who was in service and received some injury or disability in the ranks of service and later on has been able to pay for it. When he entered the service he wasn't asked whether he was poor or rich. I feel that if he was injured in the service he should receive care in appreciation for the service that he rendered. This resolution doesn't protect the man who was injured in service and is now able to pay, but who in appreciation of the fact that he did render service should be cared for."

Dr. Neeley: "The Battle of New Orleans was mentioned a while ago. That battle wouldn't have been fought today. It was fought a week after peace was declared. I would like to go Dr. Reed one better and make a motion that the House of Delegates go on record as favoring the absolute abolishment of the Soldiers' Relief Commission."

Dr. Thompson: "That would have to go as an amendment to Dr. Reed's resolution."

Dr. LeRoy Long: "We have been talking a great deal about a problem of the medical profession that the people will have to adjust. I believe that we ought to go into this with a great deal of care. I was not in active service but detached service, Dr. Neeley, but I know something about the pressure that was brought to bear getting men into the service. I know something about how sub-standard men were taken into the army, through my own observation and through conversation with other men. We have to remember all these things. I know too, and you know, about communisms in other directions. You know, every one of you, intimate friends who are willing to draw compensations for alleged incapacities. They can do just as much work as you or I. That must be taken in mind when talking about this. It is perfectly clear in my mind that nobody should receive attention at the expense of the state if he is able to take care of himself. That is the basis of the proposition, and let us start out from that point of view. Every individual not able to take care of himself, the community must take care of him. How does it work out in the organizations of other states, but particularly in Oklahoma? If a person comes to you seeking service, inquire what county he is from and tell him to talk to the County Commissioners and see if they won't help him. He goes back, and often it is impossible to make an arrangement, even with the assistance of the doctors. This Relief Commission was created for the purpose of taking care of any person who served in the army and is now down and out, who is not able to take care of himself. I am in perfect accord with Dr. Reed's resolution; I am not in accord with the amendment made by Dr. Neeley. I believe we ought to let it be understood in this meeting that we are willing to carry out all the traditions of the medical profession, rendering service to the individual who is not able to take care of himself. I remember the time very well when in connection with medical schools we used to go out and try to get clinical material. Now it is the other way. That shouldn't alter our attitude. Here is a concrete example of what I am trying to say: a young man came up to the clinic several years ago. He had an old Ford car and lived with his widowed mother on a farm. He was an ex-service man. He struck a match one day and had an explosion, and his hands were terribly burned. He was entirely helpless. He stayed out there and couldn't get the county authorities to do anything for him in five weeks, and then it came to the attention of the Relief Commission, and he was sent into the hospital and we took care of him as best we could. Two weeks ago he happened to come to my office, and he was a decent-looking fellow. His hands were crippled but he was able to go back to work. His injury was not received in service, but he had left everything and gone into the army and served his country. When he needed attention he couldn't get it; his mother couldn't do anything because she had nothing to do with, and the county authorities wouldn't help him, and then through the Relief Commission it was possible to do something for this poor fellow. Now, I would like to see this same sort of arrangement kept up. I would like to see, however, a very much more acute discrimination in connection with this matter, and that is where we should bring our pressure to bear. The man who served his country, and who is down and out, and who is in need of aid should be cared for."

Dr. Neeley: "I would like to tell Dr. Long this —when they took me in the army they didn't ask me anything. I was passed to class 5-A. They gave me $30.00 a month, room and board, paid me this to support myself while in school at Oklahoma City. When I got out they gave me a $60.00 bonus. It didn't last me over night. They are giving new bonuses now costing around three billion dollars, Congress refused to pay the last half of it. Dr. Long comes before you now and tells you about these pitiful cases that the Oklahoma Relief Commission has helped. I agree with him, I am just as pitiful as he is. But what is the matter with the County Commissioners? Now the indigent case in Oklahoma County, the commissioners are fully authorized to take care of that patient by law. When these soldiers come around giving pitiful spiels tell them to go to the county officials. Let the State of Oklahoma stay out of it. Clause 202-10 U. S. Veterans Regulation is far reaching, gentlemen, it means that any man ill or injured who was in the service of the United States Army at any time can get medical service free of charge. I don't believe in discrimination, and I think 202-10 is a very fair action. The Veterans' Bureau has no right to push any man's claim. If he got that disability in service, I maintain that the Government should take care of it, in agreement with Dr. Kies, but otherwise he ought to shift for himself."

Dr. Weber: "We will vote on Dr. Neeley's proposed abolition of Relief Commission amendment."

Motion lost. (Standing vote).

Dr. Reed: I should like to add one other sentence to this resolution, that is that in anticipation that the officers of the association be direct-

ed to send a copy to the Governor of the State, and to each member of the Legislature."

Dr. Weber: "All those in favor of Dr. Reed's resolution, signify in usual manner."

Motion carried.

Dr. Reed: "I do not want to monopolize the time, but I rise to a point of order or something. In last night's procedure we had some resolutions which had not been presented to the body until presented by the Resolutions Committee. We passed one resolution last night which in my opinion is rather doubtful—the one that makes all doctors in Government service of any kind eligible to membership in this Society. Now, I have in mind an example of where that embarrassed us very much. During the war with a resolution of the State Society, any officer in the army who gave his address as a given county was taken in without question. We took in such a member, and we had a bitter pill on our hands. Many of those who are working on salaries are not interested in organized medicine, they are interested in raising their salaries and furthering their own advancement. I am not real sure that this is a good resolution. I move that we reconsider that resolution."

Dr. Thompson: "The purpose is to let men in the Veterans' Bureau here belong to the State or County Society, at present they can't belong unless they are in legal practice in Oklahoma. Dr. Bates is a member of your County Society."

Dr. Reed: "He was approved through the Board of Censors."

Dr. Neeley: "I would like to ask a question. Is it absolutely necessary for a man to belong, that he be licensed in Oklahoma. That is my idea, and we have eight or ten men in Muskogee who cannot be licensed in Oklahoma but are anxious to belong to the Oklahoma Association."

Dr. A. Ray Wiley: "Personally I see nothing about that motion that could be construed to the detriment of our Medical Society in Oklahoma. I think these men make very excellent members. I think it is a very good motion. They are much more eligible after having passed certain requirements than some men we take in very quickly."

Dr. Thompson: "It is a strange thing to me if these men can have the approval of the American College of Surgeons and can't get into the State Medical Society. They are men who live in other States. They are only here temporarily."

It was requested that the motion again be read.

Dr. Reed: There is a feeling that those who are in associations such as the Veterans' Administration are not interested in organized medicine."

Dr. Neeley: "The Veterans' Bureau men are with you for organized medicine. If you don't let them in, how are they going to get in. How is Dr. S. R. Brown, Muskogee, going to get in, from Atlanta? He is just graduated, passed through internship and not licensed in Oklahoma."

Dr. LeRoy Long: "Why wouldn't this settle the situation? We could provide that Army, Navy, Public Health and Veterans' Bureau men, who comply with our professional and ethical requirements be eligible to membership."

Dr. Thompson: "They have to comply just like anyone else."

Dr. Long: "Dr. Reed mentioned an example. I know who he is talking about. A chiropractor got into public health service and into our Society and gave us a lot of trouble in Oklahoma City. If we have this cast-iron rule we will be all right. We can provide that they must meet our professional and ethical requirements and that will make it clear."

Dr. Thompson: "It might state that they 'may be admitted upon due application.'"

Standing vote taken on Dr. Reed's motion, resulting in 17 for and 12 against.

Dr. Long: "I offer this as an amendment: 'Providing that members of the medical profession in the Army, Navy and Public Health service comply with the professional and ethical requirements of the State Society.'"

Dr. Thompson: "All Governmental Officers."

Dr. Long was requested to write out his amendment, which is as follows:

RESOLUTION

> The following addition is proposed to Chapter I, Page IV, Constitution and By-Laws of the Oklahoma State Medical Association. After Section III, Chapter I—Membership, add "Section IV: Any County Society may admit to membership any Medical Officer detailed to duty in the State of Oklahoma from any branch of the Medical Service of the United States Government, provided that Medical Officers in Governmental service comply with professional and ethical requirements of the Association, and who have license in some State of the Union may be eligible."

It was moved and seconded that Resolution be adopted. Motion carried.

Dr. Weber: "I wish to present to you, Dr. T. H. McCarley of McAlester, President-Elect."

Dr. McCarley: "Mr. Chairman, Gentlemen, and friends; I have no speech to make. You are in no mood to receive a speech; I am not capable of making one. I can hardly realize that you have conferred on me this supreme honor. I have been faithful to the Association for a good many years and the State has been good to me. In the position as understudy to your good and genial President here, perhaps I shall be able to carry on in a fairly decent manner when my turn comes to serve you."

Dr. Thompson: "There is still one resolution to be voted upon—the one providing five sections."

Dr. Willour: "May I ask how the officers of the new sections will be elected the first year?"

Dr. Thompson: "The Committe on Scientific work will appoint them the first year."

Resolution voted upon, and carried.

Dr. Weber: "Dr. Anderson has an announcement to make."

Dr. Anderson: "I just want to announce that the Legislative Committee composed of Dr. Fulton, Dr. Reed and Dr. Byrum, the Dean of University Extension wants to see you immediately after this meeting, and Dr. Willour will accompany them to him."

The report of the Committee on Necrology was given by Dr. Ellis Lamb, Chairman:

> "This is a sacred hour at which the Oklahoma State Medical Association pauses to pay tribute to our departed

brothers, whose deaths have occurred since our last meeting; their names are as follows:

Dr. B. F. Applewhite, Tecumseh.
Dr. J. B. Beckett, Spiro.
Dr. Walter C. Bradford, Shawnee.
Dr. E. C. Byram, Okmulgee.
Dr. C. H. Day, Pawhuska.
Dr. P. A. Edwards, Nardin.
Dr. E. S. Gooch, Lawton.
Dr. E. J. Gray, Tecumseh.
Dr. A. L. Gregory, Muskogee.
Dr. Alfred Griffith, McAlester.
Dr. Robert H. Henry, Ardmore.
Dr. Jefferson D. Kiser, Bartlesville.
Dr. J. W. Marshall, Shawnee.
Dr. Wilbur E. Rammel, Bartlesville.
Dr. W. H. Rogers, Tulsa.
Dr. J. D. Scott, Holdenville.
Dr. J. C. Stephenson, Oklahoma City.
Dr. A. L. Stocks, Muskogee.
Dr. Charles K. Tillison, Bartlesville.
Dr. L. W. Troutt, Afton.
Dr. J. W. Tucker, Lindsay.
Dr. J. B. Wear, Poteau.
Dr. A. C. White, Chickasha.
Dr. T. F. Wood, Sallisaw.
Dr. E. N. Wright, Olney.

The hand of time moves on and in vain do we call the names of our beloved brothers whom God has called to dwell forever in that eternity that feels no sorrow and knows no end.

While they were here they gave their friendship which we shall cherish as indestructible jewels and when they passed on to a greater realm we felt that priceless pearls had been dropped in the depth of an unfathomed ocean.

They freely donated their mental talents to the profession, which they loved and served so well, that its honor might be raised to a height where ignorance cannot reach or scandal tarnish. The history of good men and honored citizens was their history, the love of kind fathers forever burned in their hearts, they felt the accolade of faith services rendered to their State and the communities in which they resided; they knew the keen passions of ambition to have the Oklahome State Medical Society excel in all its undertakings. Now as we call their names aloud we hear no response.

Be it resolved that the State has lost good citizens, that their wives and children shall mourn the absence of loving husbands and fathers, and that the Oklahoma State Medical Association has lost honored members.

Be it further resolved that these resolutions shall be spread upon our records, that they be printed in our State Medical Journal, and that copies be sent to the family of each deceased brother."

Respectfully submitted,
DR. ELLIS LAMB, Chairman
DR. J. S. FULTON.
DR. R. M. ANDERSON.

It was moved and seconded that the report on necrology be adopted. Motion carried.

Dr. J. A. Walker, Shawnee: "I move that in deference and respect to these brothers that the State Society stand in silence for one minute and then adjourn."

Motion carried.

Dr. Willour: "Where will the Society meet next year?"

Dr. Neeley: "I extend the invitation for it to meet in Muskogee next year. We have not had it since 1926."

Dr. Phil McNeill, Oklahoma City: "Oklahoma City extends the invitation for it to meet in Oklahoma City."

Dr. Weber: "Muskogee and Oklahoma City. Are you ready for the vote?"

Dr. Neeley: "I will withdraw the invitation of Muskogee in favor of the invitation to Oklahoma City."

It was then voted to meet in Oklahoma City in 1933.

Meeting adjourned.

C. A. THOMPSON,
Secretary-Treasurer-Editor.

Editorial Notes—Personal and General

DR. CLAUDE S. CHAMBERS, Seminole, was recently elected President of the Seminole Rotary Club.

WAYNOKA will have a follow-up clinic about the first of July, according to Dr. Cecil Bryan of the State Health Department.

DR. L. G. DRIVER, Ponca City, read a paper on "Epidemic Meningitis," at a meeting of the Staff of the Ponca City Hospital, recently.

DR. E. D. RODDA, Okmulgee, has returned after nine months study in Vienna. After finishing his work he traveled for three weeks in Italy.

THE LAST MEETING OF GARVIN COUNTY was held May 18th, at Pauls Valley, the program was "Report of the Committee on Cost of Medical Care."

DR. GEORGE N. BILBY, State Commissioner of Health, Oklahoma City, who recently underwent a cholecystectomy is reported as making a good convalescence.

DR. C. E. WALLER, Assistant Surgeon General of the U. S. Public Health, attended the Annual Meeting, representing Surgeon General Cumming, who was unable to be present.

DR. W. H. MILES, Oklahoma City, has placed a special check on dairy herds supplying Oklahoma City with milk in an effort to trace, if possible, the origin of some cases of malta fever.

DR. H. T. BALLANTINE, Muskogee, Chief Surgeon of the Midland Valley Railroad, tendered a luncheon to local surgeons at the Mayo Hotel, May 25th. Sixteen members were present.

CREEK COUNTY MEDICAL SOCIETY met at Bristow, May 19th. The program "Conditions of the Heart" by Dr. W. J. Trainor, Tulsa, was discussed by Drs. Orange W. Starr and P. L. Lewis, Drumright.

GARFIELD COUNTY MEDICAL SOCIETY met May 3rd at Enid as guests of Dr. T. H. Hinson, and the Staff of the Enid Springs Hospital. Dr. Hugh Jeter and Francis E. Dill, Oklahoma City, presented "Arthritis."

DR. S. R. CUNNINGHAM, Oklahoma City, is to be one of the speakers on Orthopedics at the 1932 meeting of the Pacific Northwest Medical Association, meeting in Spokane the last week in June and the first of July.

COMANCHE COUNTY MEDICAL SOCIETY met at Lawton, April 21st. Dr. E. S. Lain, Oklahoma City, read a paper on "The Latest in Cancer"; while Dr. W. W. Rucks, Oklahoma City, spoke on "The Latest in Pneumonia, Type and Treatment."

OKLAHOMA CITY HEALTH PHYSICIANS have discovered another racket. Patients supposedly suffering from Pellagra have been using yeast, which was supplied them, for purposes other than treatment. It is not difficult to guess to what use the yeast was placed.

KAY COUNTY MEDICAL SOCIETY met April 24th at Blackwell. Dr. W. M. Leslie was host to the meeting. Dr. Geo. H. Niemann read a paper on "Ilius." Dr. Thos. McElroy gave a paper on "X-ray Diagnosis of Cardiac Diseases," while Dr. J. C. Wagner led a round table discussion.

DOCTOR W. W. WELLS AND WIFE, DOCTOR EVA WELLS, Oklahoma City, were guests of the Cooke County Medical Society of Gainesville, Texas, May 10th. Dr. Wells appeared on a scientific program and his subject was "Version with Application of Forceps to the After Coming Head."

KAY COUNTY MEDICAL SOCIETY met May 23rd at Tonkawa. Dr. A. S. Risser read a paper on "Obstructive Lesions." The meeting decided to participate in another course by the Extension Department of the State University at some future date. The staff of the Tonkawa Hospital served refreshments.

WOODS-ALFALFA COUNTY MEDICAL SOCIETY met at Alva, May 17th. The program "Undulent Fever" as presented by Dr. H. H. Turner, Oklahoma City, with slide illustrations; by Dr. J. W. Mercer, Cherokee. Dr. J. B. Eskridge, Oklahoma City, presented "Application of Forceps' 'and "Podalic Version."

OKLAHOMA STERILIZATION law will be tested before the Supreme Court if necessary according to Mr. Richard H. Cloyd, Norman attorney, who is opposing sterilization of Samuel W. Main, a patient confined at the State Hospital. The law itself provides that these cases be amply protected before any action is taken.

DR. JOHN R. CALLAWAY, Secretary of Garvin County Medical Society writes the Journal a very complimentary letter upon the pleasure that Society derived from using the State Association films shown at Pauls Valley in April. Among the visitors were Dr. Scott, Norman; Drs. Holly, Kilfoy, Jacobs and Postelle, Oklahoma City.

DR. NEWTON RECTOR, Hennessey, 94 years young, did not find his age any bar to attendance at the Annual Session. Dr. Rector has been practicing medicine for more than 60 years. A gentleman of the fine old school he was widely interviewed, photographed and given great consideration by his physician friends as well as the Tulsa papers.

"RADIANT LIGHT is a very powerful force and devastation and disaster when used for treatment by anyone who is not well trained and experienced may follow its use," was the advice of Dr. L. A. Turley before the Cleveland County Medical Society recently. Dr. Turley went into considerable discussion of the matter beginning with the discovery of X-rays in 1895 and radium by Madame Curie in 1899.

OSAGE COUNTY MEDICAL SOCIETY held their monthly meeting at Pawhuska, May 2nd, the guests of Drs. Paul H. Hemphill and M. E. Rust at the home of Dr. Hemphill. The evening's discussion was on "Neoplasms" which was discussed by the guest speakers from the Diagnostic Clinic of Kansas City Mo. The speakers were Drs. F. C. Narr, director of the Diagnostic Clinic; R. L. Hoffman, Urologist; J. D. Montgomery, Surgeon; R. C. Davis, Internist and I. H. Lockwood, Roentgenologist. Others present were Drs. H. C. Weber, president of the Oklahoma State Medical Association and Dr. W. A. Howard, Chelsea.

RADIUM has always been dangerous, concludes even the layman. That is the beginning of an editorial in the Bartlesville Examiner, April 6th. The Examiner notes that "even the most skilled and experienced have difficulty in handling it safely when using the most advanced methods and equipment." The Examiner concludes, "it ought to be easy to show the sick that they can't afford to take chances with self treatment, fakirs or amateurs. The so-called "radium spring or well water" is not dangerous. It is termed "radio active" but contains no essential free radium.

OKMULGEE COUNTY MEDICAL SOCIETY met at Henryetta May 16th. After a dinner and transaction of official business Dr. W. M. Jones, Tulsa, read a paper on "Radical Frontal Sinus under Local Anesthesia." The paper was widely discussed. Due to lack of time a paper by Dr. F. S. Watson, Okmulgee, entitled "High-Lights of Surgical Advance," was passed until some other meeting. Dr. W. C. Vernon, delivered an address on "Wien oder Wein, Weib, und Gesang." That shows that Dr. Vernon must have learned some Dutch during his recent European trip. The meeting was well attended.

THE MUSKOGEE COUNTY MEDICAL SOCIETY met on May 23rd, 1932, with an attendance of thirty-one to hear a Symposium of

Syphilis. Essayists were: Dr. Floyd E. Warterfield, "History of Syphilis"; Doctor Carl L. Brundage, Oklahoma City, "Primary Syphilis, Diagnosis and Therapy"; Doctor S. R. Brown, U. S. Veterans' Hospital, Muskogee, Okla., "Tertiary Syphilis, Its Manifestations and Therapy"; Doctor Phil M. McNeil, Oklahoma City, "Visceral Syphilis, Its Therapy"; Doctor Felix Adams, Vinita, Oklahoma, "Neuro-Syphilis, Its Manifestations and Therapy."

The Muskogee County Medical Society voted to discontinue meetings until the second Monday in September.

The Inter-City Relationship Committee reported that the following Counties have been contacted for Reciprocal Programs, Tulsa County, Pittsburg County, Okmulgee-Okfuskee County, and Sebastian County, Arkansas. Plans are under way to exchange programs with these counties this next year, or the fall and winter. It is believed that these programs will greatly increase interest locally and have a tendency to promulgate friendship and good will between these County Medical Societies.

TENTATIVE CENTERS EASTERN OKLAHOMA POST-GRADUATE MEDICAL COURSE DEGENERATIVE DISEASES, JUNE 13 TO JULY 15

First Week

Diet and Degenerative Disease. Clinic. Dr. I. I. Lemann, New Orleans, Louisiana.

Myocardial Diseases. Clinic. Dr. Tom Lowery, Oklahoma City, Oklahoma.

Second Week

General Arterial Disease and Hypertension. Clinic. Dr. Ellsworth S. Smith, St. Louis, Mo.

Degenerative Disease on Basis of Food Deficiencies, Pellagra, Pernicious Anemia, etc. Clinic. Dr. J. T. Martin, Oklahoma City, and Dr. A. W. White, Oklahoma City.

Third Week

Peripheral Vascular Disease. Chronic Rheumatic Disease. Clinic. (To be selected later).

Vascular Disease of the Brain. Clinic. Dr. Harry Wilkins, Oklahoma City.

Fourth Week

Bright's Disease. Clinic. Dr. J. B. McElroy, Memphis, Tenn.

Coronary Disease. Angina Pectoris. Clinic. Dr. A. B. Chase, Oklahoma City.

Vinita ..... June 13, Monday, 2:00 P. M.
Muskogee ..... June 13, Monday, 7:30 P. M.
Okmulgee ..... June 14, Tuesday, 7:30 P. M.
Holdenville ..... June 15, Wednesday, 7:30 P. M.
McAlester ..... June 16, Thursday, 7:30 P. M.
Poteau ..... June 17, Friday, 7:30 P. M.
Vinita ..... June 20, Monday, 2:00 P. M.
Muskogee ..... June 20, Monday, 7:30 P. M.
Okmulgee ..... June 21, Tuesday, 7:30 P. M.
Holdenville ..... June 22, Wednesday, 7:30 P. M.
McAlester ..... June 23, Thursday, 7:30 P. M.
Poteau ..... June 24, Friday, 7:30 P. M.
Vinita ..... June 27, Monday, 2:00 P. M.
Muskogee ..... June 27, Monday, 7:30 P. M.
Okmulgee ..... June 28, Tuesday, 7:30 P. M.
Holdenville ..... June 29, Wednesday, 7:30 P. M.
McAlester ..... June 30, Thursday, 7:30 P. M.
Poteau ..... July 1, Friday, 7:30 P. M.
Vinita ..... July 11, Monday, 2:00 P. M.
Muskogee ..... July 11, Monday, 2:00 P. M.
Okmulgee ..... July 12, Tuesday, 7:30 P. M.
Holdenville ..... July 13, Wednesday, 7:30 P. M.
McAlester ..... July 14, Thursday, 7:30 P. M.
Poteau ..... July 15, Friday, 7:30 P. M.

DOCTOR ANDREW WARREN HARRIS

Doctor A. W. Harris, born in Wehackee, Alabama, December 3rd, 1875, a graduate of Memphis Medical College in 1907, a member of the Muskogee County Medical Society since 1908 died at his home on May 26th, 1932, following a short illness.

Realizing the inadequacy of language to state the feeling of loss caused by the passing of a close associate in a work entering into the most intimate relationship with those we serve, your committee suggests placing upon the records of the Muskogee County Medical Society and sending copies to the close relatives the following simple resolutions.

FIRST, An expression of our sincere appreciation of his good fellowship his whole hearted co-operation, his inexhaustible zeal in all of his work and undertakings, whether remunerative or not. His loyal untiring efforts in the speedy accomplishment of any task assigned to him by the Muskogee County Medical Society. We shall indeed miss him.

SECOND, An expression of sympathy to his wife, father, sisters and brothers and to his many friends.

Signed,
J. T. NICHOLS, M.D.
HOWELL A. SCOTT, M.D.
JAMES G. RAFTER, M.D.

DOCTOR E. S. GOOCH

The fact of the uncertainty of life and that we are about our usual task today and tomorrow gone from earth's labors is exemplified by the sudden death, April 14th, 1932, of Dr. E. S. Gooch.

The members of the Comanche Medical Society deeply mourn the loss of Dr. E. S. Gooch our co-worker, beloved friend and one of our members for many years. He has been a faithful and willing worker in our midst, having an unusually brilliant mind and a studious nature. He always brought to our meetings something of value, and with his pleasing faculty of delivery would make it unusually interesting.

He was a man of many qualifications. His happy disposition, made it easy for him to meet and make friends. Really to know him was to be his friend. He was of a

generous nature, always ready to do his part and greet everyone with a cheerful word and a smile.

Be it Resolved: That we extend to his brother Dr. L. T. Gooch and other relatives our heart felt sympathy in their sorrow and grief and mourn with them our mutual loss.

Be it further Resolved: That these Resolutions be spread upon the records of the Comanche County Medical Society; that a copy be sent to the Oklahoma State Medical Society; that a copy be sent to his immediate relatives.

E. BRENT MITCHELL, M.D.
G. S. BARBER, M.D.
W. J. MASON, M.D.
Committee.

TREATMENT OF CHRONIC OSTEOMYELITIS, WITH ESPECIAL REFERENCE TO USE OF MAGGOT ACTIVE PRINCIPLE

According to S. K. Livingston and L. H. Prince, Hines, Ill. (Journal A. M. A., April 2, 1932), it was formerly supposed that maggots were effective in osteomyelitis because of their mechanical action—rapid movement and the ingestion and digestion of bacteria and necrotic material, thus rendering such matter inert, stimulation of a rapid outpouring of blood serum, which is healing, and the rapid increase of the ph of the wound. When observed closely, it has been noted that in the early stages of treatment (after the first to third applications) the maggots will live until replaced. As the treatment continues, the maggots will live for a decreasing period and after the fifth application the maggots will live only a few hours. Death occurs because the ph of the wound has increased and because some substance has been produced through the contact of the live maggots with the tissues which so increases in virulence that with time the maggots are killed by its potency. For want of a better name, the authors have called this substance a therapeutic active principle. All through the work their attention was continually focused on the fact that it was not mere mechanical action of the maggots that was primarily responsible for the beneficent results obtained by their use. Animal experiments showed that this additional agent which was developed through the contact of the maggots with the living tissues was, in itself, a curative agent. That an additional agent was probable in effecting a cure seemed clearly demonstrated by the use of filtered extracts from the bodies of crushed larvae. These observations pointed clearly to the presence of some substance which, in itself, was sufficiently powerful to overcome infections and permit a normal ph balance to be established. Their opinion was further warranted from the fact that filtered uncontaminated products derived from the bodies of larvae in culture when brought into contact with pyogenic organisms in petri dishes destroyed the cultures. The active principle was obtained by grinding live maggots in sterile saline solution and filtering the product through coarse and fine Berkefeld filters. Due care was taken to preserve a sterile environment to ensure sterility and standardization for potency of the product by standard methods. Sterility was tested aerobically and anaerobically before use. Recently solid substances have been obtained from the filtrates, which to date are of unknown composition. Chemical analysis and animal experimentation are now being attempted to prove the nature of these healing substances. The vaccine used was an autogenous or polyvalent suspension of killed organisms counted and fortified by the active principle and tested for sterility. A vaccine of killed organisms in saline solution without the active principle fortification did not improve sufficient. One hundred cases of chronic osteomyelitis, infected wounds and compound fractures have been treated by this principle and vaccine with or without the use of live maggots, and 88 per cent of the cases have been healed. Chronic leg ulcers, sinus infections and mastoid infections are now being treated by this active principle and vaccine. Results cannot yet be stated. Three cases of long-standing middle ear disease have been healed.

SEMINAL VESICLES: NEWER INSTRUMENTAL METHODS IN DIAGNOSIS AND THERAPEUTIC MANAGEMENT

Joseph F. McCarthy and J. Sydney Ritter, New York (Journal A. M. A., Feb. 27, 1932), state that their objective has been, by means of improved and rational technical procedure, to render the seminal vesicles accessible to the same kind of study as, for example, is now the renal pelvis: in other words, to bring it within the spotlight—the searching scrutiny of orderly scientific investigation. To facilitate the catheterization of the ejaculatory duct, it is essential that an instrument be used which will direct the catheter to take the same relative course that the ejaculatory duct takes through the verumontanum and prostate gland. For this purpose the McCarty ejaculatory duct catheter carrier, with spring wheel deflector, is necessary. It is composed of three parts, the sheath, obturator, panendoscopic telescope and the ejaculatory duct catheter carrier. The sheaths are a number 24 F. and a number 26 F. whose circumference is more circular than the ordinary panendoscopic sheath. The telescope is slightly modified to admit this carrier, a new departure in urology, for with its use catheterization of the ejaculatory ducts and therapy to the seminal vesicles in indicated cases is rendered a simple procedure. Catheterization of the ejaculatory ducts togther with the collection of the uncontaminated seminal secretion, generally speaking, should be reserved for refractory cases of seminal vsiculitis not responding to the usual therapeutic measures. The specific indications are as follows: (1) Chronic arthritis—when other foci have been eliminated and the seminal vesicles are suspected; (2) persistent chronic posterior urethritis with evidence of verumontanitis and microscopic evidence of pathologic changes in the expressed secretion; (3) vague indefinite backaches—undetermined by the usual measures; (4) impotentia; (5) sterility, and (6) sexual asthenia with large palpable vesicles to determine patency of the ejaculatory ducts.

ABSTRACTS, REVIEWS, COMMENTS AND CORRESPONDENCE

NEUROLOGY AND ENDOCRINOLOGY

Abstracts, Reviews and Comments Edited by Henry H. Turner, M.D.
319 Osler Medical Building, Oklahoma City

Ascending Paralysis Resulting from the Drinking of "Jamaica Ginger." Werden, Delbert H., Annals Int. Med. 5:1257, April, 1932.

This author reports a rather thorough study of fifty cases of "jakeitis" occurring in Los Angeles county. He emphasizes the difference in the findings in this series of cases from those already reported by other authors. He believes the symptoms produced are due to the presence of triorthocresyl phosphate, which causes degeneration of the myelin sheath, the axis cylinders and motor cells.

Cramps, soreness, and stiffness of the calves of the legs were the first symptoms in the majority of the cases, appearing within an average of 5.5 days after the ingestion of the "Jamaica ginger." This was followed by weakness of the feet and legs, which progressed to the thigh.

He states that, while most observers mentioned only the footdrop in this disease, he is of the opinion that plantaflexion is impared almost simultaneously and equally with dorsiflexion. Weakness of the hands consistently appeared on an average of ten days from the onset of the initial symptoms.

His conclusions are as follows:

1. The disease can be definitely diagnosed on the physical findings alone. The history is often unreliable and is relatively of little importance.

2. The flexors of the extremities are affected almost equally with the extensors.

3. Sensation is seldom affected.

4. The lesion in Jamica ginger paralysis is more than a neuritis. Clinical and pathological findings indicate that the process is an ascending degeneration, the extent of which is proportional to the amount of the chemical absorbed from the intestinal tract, and is manifest clinically by changes in the motor power of the extremities, and in the various deep and superficial reflexes.

5. Although impairment of vision is not elicited subjectively, the disease frequently delays the pupillary light reflex, often produces irregularity of the pupils, and occasionally gives an optic neuritis.

The Dehydration Method in Epilepsy. Cameron, D. E., Am. J. Psychiat. 11:123, July, 1931.

This author studied the effects of dehydration on twelve cases of epilepsy, and concludes that the method is of little or no value in the treatment of this condition. His conclusions are not in accord with those of American investigators and, inasmuch as he admits that many of his patients were noncooperative; stole water from other patients; and were advanced deteriorated types, it would seem that this contribution is of little value.

The Organization of Treatment for Infantile Paralysis. Levick, G. Murray, Brit. M. J. 2:652, October, 1931.

This author discusses the treatment of acute poliomyelitis and that of the after-effects. He states that during the acute attack anterior poliomyelitis antitoxin should be given immediately, but that it is probably worthwhile to give it any time during the presence of fever. It is important to obtain correct posture of the affected parts in the beginning, and this is best accomplished by the use of slings. Though there is usually complete destruction of the anterior horn cells, he believes many of them are incapacitated without complete destruction and that many of them may recover, though their axons have degenerated. Regeneration of some of the axons may continue for a year or more; therefore, it is important that after-treatment should be continued over a long period. The affected muscles should be placed in correct posture, and properly administered electrical treatment may be of great assistance, though he warns that if improperly administered it may do much harm. He advises against the use of excessive faradic stimulation and recommends the single stimulus of an interrupted galvanic current during the early stages of recovery. Careful massage is also an important part of the treatment.

He believes that in cases where the muscles of the trunk are involved recumbent positions should sometimes be maintained for many years in children, as this is the only way to prevent serious spinal deformity.

Vascular Spasms: A Clinical and Experimental Study. Riser, P. Meriel and Planques, Encephale 26:501 (July-Aug.), 1931. Abstr, Arch. Neur. and Psychiat. 27:938, April, 1932.

This long article presents several clinical cases, followed by some experimental researches on the question of the appearance of vascular spasms in the brain. The authors' conclusions are briefly as follows:

The clinical studies demonstrate the relative frequency of transitory deficit syndromes in the region of the brain or medulla, characterized by sudden appearance and disappearance, by duration from a few minutes to several hours, and usually preceding a definite lack such as hemiplegia or cortical hemianopia. For explaining these facts the hypothesis of a fleeting ischemia is the most satisfactory. These vascular spasms may attack the great trunk of the sylvian artery, before the formation of collaterals or one of the collaterals. This hypothesis of arterial spasm is rendered more probable by certain anatomicoclinical ob-

servations. Thus, the nutrient arteries that have been attacked by arteritis can become and remain permeable. The nerve tissue supplied by these vessels may develop a certain tolerance toward the relative ischemia.

Experimental proofs in animals and even in man show that abrupt transitory local spasms of cerebral arteries coursing through the subarachnoid space is possible. The usual pharmacologic agents, such as epinephrine and ephedrine, do not produce an appreciable diminution of arterial caliber, but it is well known that mechanical or electrical stimulation is sufficient to produce pronounced local spasms lasting for considerable periods of time. Direct observation and microphotographic studies testify to this. The hypothesis of Foix, in which it is supposed that the lesion of arteritis itself plays an exciting role in producing such temporary spasms, is considered probable by these authors.

They conclude that they would not account for all transitory paralyses by arterial spasm. Thus, among other things, sudden drops in arterial tension may be causative of such conditions.

Blood Pressure and Goiter. Askey, J. M. and Toland, C. G., California and West. Med. 34:80, 1931. Abstr. Endocrinology 16:103, 1932.

This paper is based upon the study of 550 case records. Regardless of age a systolic blood pressure of above 150 and a diastolic of above 110 is regarded as high, while a systolic below 110 is regarded as low. Of the patients observed 90% were women. Thirty and six-tenths per cent had hypertension; 2% had elevation of blood pressure above the normal for their age but not above 150. Five and four-tenths per cent had low blood pressure. The percentage of hypertension was slightly higher in the toxic adenoma than in the exophthalmic goiters. The basal metabolic rate of this group, consisting both of hyperthyroidism with adenoma and with hyperplastic thyroid was plus 33%. In the exophthalmic goiter patients with hypertension the pulse pressure increased more than in the adenomatous patients. Individually there was no definite correlation between the height of the B. M. R. and the height of the pulse pressure. In other regards, comparison of 100 records of toxic goiter with hypertension with another with normal pressure showed a greater tendency of toxic adenoma toward hypertension. The greater the duration of thyrotoxicosis the more likely hypertension will develop.

The Growth Hormone. Engelbach, William, Endocrinology 16: 1, 1932.—Author's Summary.

The author reports two cases of hypopituitarism, showing marked deficiency of both the growth and sex hormones. One subject of infantile hypopituitarism is four years of age, and the other is a juvenile aged nine years and six months. This subject was given replacement treatment of Evans' purified growth hormone. Although Evans discovered the growth hormone in 1922, this is the first human being to whom it has been given. This has been due to the difficulties in its purification and separation from the pituitary sex hormone. This paper discusses the incidence, symptomatology, and diagnosis, as well as the treatment of insufficiency of the anterior lobe of the hypophysis during the preadolescent age. The author contends that hypopituitarism during infancy and juvenility is a very common endocrine disorder. Emphasis is placed upon the case of diagnosis of deficiency of the growth hormone, which is made by comparison of actual measurements of infants and juveniles with standard measurements for age and sex, such standard measurements being included in this article. The subject who was given replacement of Evans' growth hormone was a girl nine years and six months of age who had had an arrested physical development for a number of years previous to institution of such treatment. This hormone, which Professor Evans had tested out very carefully by prolonged animal experimentation, was given first in very minute doses and gradually increased until 10 c.c. was given intramuscularly. The reaction to this treatment during the nine months and seventeen days that it was administered showed that there was an increase of 2.7 inches in height: 7.5 pounds in weight; 0.6 inches in circumference of the head; 1.7 inches in the chest, and 1.3 inches in the abdomen. The reaction to treatment during this age is very favorable.

TUBERCULOSIS

Edited By

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Obstructive Massive Atelectasis of the Lung. Pol N. Coryllos, M.D., and George L. Birnbaum, M.D. Archives of Surgery, February, 1928.

The results of experimental work on 56 dogs are given in this paper. The problems investigated were: (1) Phrenicotomy unilateral and bilateral; study of the respiratory rhythm and the intrapleural pressure; obstruction of bronchi in phrenicotomized animals on the same and on the opposite side of the paralyzed diaphragm. (2) Obstruction of a bronchus and investigation of atelectasis under direct observation, the animal being in a box with oscillating negative pressure. (3) Obstruction of a bronchus with an obstructing elastic balloon and observation of the evolution of the collapse by fluoroscopy and serial roentgenograms. Autopsies were performed and sections made on all the animals. A careful study of the clinical symptoms, the physiologic phenomena, the roentgen-ray observation on serial pictures and the pathologic and bacteriologic condition of the animals convinced the authors that: (1) The determining cause of massive atelectasis of the lung, whether it is post-operative, spontaneous or secondary to obstruction by a foreign body or to infection, is always a complete obstruciton of a bronchus or compression of the lung (by effusion or pneumothorax) which abolishes the effects of the intrapleural negative pressure. (2) The obstruction of a bronchus in post-operative cases is due to a plugging by mucus which may be present at autopsy or which may have been expelled before death. It is possible that the "plugging of a bronchus" may be effected by thin secretion occluding its lumen. As an aid to the accumulation of mucus are pain, paralysis of the respiratory muscles, general cachexia, recumbency or narcotics or any other factors tending to diminish respiratory movements or abolish cough. (3) Spastic contraction of the bronchial muscle does not produce atelectasis but does produce emphysema. (4) The existence of so-called

"angioneurotic edema" of the lung has never been proved, clinically or experimentally. In the cases of acute anaphylatic shock in the guinea-pig, emphysema and not collapse is produced even when edema occurs. (5) Atelectasis may predispose to infection by fixation in the parenchyma of the lung of septic emboli or microbes present in the blood.

The authors conclude that when simple methods, such as shaking or changing the position of the patient are not quickly successful, the obstructing agent must be removed by bronchoscopy with aspiration or extraction in order to hasten recovery and to avoid further septic complications such as bronchopneumonia, pneumonia or abscess.

Bronchial Obstruction. Pol N. Coryllos, M.D., and George L. Birnbaum, M.D. The American Journal of Roentgenology and Radium Therapy, November, 1929.

Atelectasis, post-operative pneumonia and lobar pneumonia (in their lobular, lobar or massive varieties) are produced by the same mechanism. This identity in pathogenesis is proved by the gross and miscroscopic appearances, their bacteriology, their circulatory disturbances, their evolution and the modifications in the pulmonary gaseous exchanges occurring in them. The differences between them in local and general symptoms, roentgenographic signs and bronchoscopic findings are in degree only. They are all due to a factor of great importance— bronchial obstruction. Any interference with the free drainage of the bronchial tree will cause lesions the nature, extent, importance and evolution of which will depend upon the degree and duration of the obstruction and the nature and virulence of the microbes present.

The rational treatment of these conditions should be based upon their etiology and, as in every other obstructive lesion, should aim to relieve the obstruction and re-establish free drainage in the bronchial tree. Carbon dioxide inhalations in 5 to 10 percent concentration seems to possess a specific action against pneumococci pulmonary infections and according to experimental and clinical data, can be used both as a preventive and a curative agent.

The authors demonstrate the importance of roentgenography in experimental investigation on atelectasis and pneumonia.

The Treatment of Pneumonia by Inhalation of Carbon Dioxide. Yandell Henderson, Ph.D., and Howard W. Haggard, M.D., New Haven and Pol N. Coryllos, M.D., and George L. Birnbaum, M.D., New York with the Collaboration of Ellen M. Radloff, B.S., Cape Town, South Africa. Archives of Internal Medicine. January, 1930.

The fact that little progress has been made during the past 50 years in the prevention and cure of pneumonia, in spite of much study, suggests that some factor other than the pathogenic organisms is involved. This factor—occlusion of an infected organ and lack of drainage—being one which ordinarily does not concern the internist, has been overlooked until recently when it has been discovered through the study of post-operative pneumonia.

Some degree of pulmonary collapse or atelectasis follows at least 10 percent of all surgical operations, especially abdominal operations where breathing is impeded by pain. It was observed that the plugging or obstruction of a bronchus induced the same condition which was followed by pneumonia. In pneumonia it is the blocking of the lung airways, bronchi or bronchioli, by plugs of thick, sticky, secretion which is the critical morbidic factor producing atelectasis and the conditions characteristic of an undrained infection. This atelectasis is prevented and relieved and the risk of pneumonia eliminated by the inhalation of carbon dioxide. Postasphyxial pneumonia following carbon monixide asphysia is also prevented by the use of 5 percent carbon dioxide in oxygen. It is well known that if the lungs are not fully distended after birth pneumonia is likely to develop. It has been learned recently that the inhalation of 5 percent carbon dioxide is much more effective in overcoming asphyxia in the newborn than the old custom of making the child cry. Success with this therapy for the relief of pneumonia depends on administering the inhalation as early as possible. If medical pneumonia is thus treated early enough, it appears probable that the results may be as effective as those already attained in post-operative and post-asphyxial pneumonia.

The following experiments reported by the authors demonstrate these facts:

(a) Atelectasis that is induced experimentally in dogs by blocking a bronchus is quickly cleared up and the lung is redistended by the deep breathing induced by inhalation of carbon dioxide in proper dilution.

(b) Pneumonia that is induced in dogs by the insufflation of a virulent culture of pneumococci is generally overcome, the lung redistended and the animal is restored to health by inhalation of carbon dioxide sufficient to cause deep breathing and continued until the pneumonia area is cleared.

Treatment of Bronchiectasis—Multiple Stage Lobectomy. Pol N. Coryllos, M.D. Archives of Surgery. May, 1930.

The extensive use of iodized oil has shown an unsuspected frequency of bronchiectasis, brought about a separation of this disease from tuberculosis, chronic empyema with bronchial fistula, chronic bronchitis and some forms of asthma, and more important, has enabled investigators to study the disease from its earliest forms when neither symptoms nor other methods of study give any information. Its great frequency in childhood following measles, scarlet fever and especially chronic inflammation of the paranasal sinuses has been established by this method and it has thus come to be recognized that bronchiectasis is a common pumonary disease. Since the disease assumes a wide variety of evolutional phases and clinical forms and treatment is thus a variable proposition, it is necessary to distinguish the various clinical varieties of bronchiectasis; (1) Bronchitic form with no classic symptoms, no involvement of the lung parenchyma and only slight bronchial lesions present—only revealed by roentgenogram following the injection of iodized oil. (2) Early uncomplicated bronchiectasis with definite bronchial lesions but still limited to the bronchi. X-ray shows cylindric or saccular dilations of the bronchi; clubbing of the fingers is present but there is no foul sputum,

fever or loss of weight. The lesion is generally unilateral, or at least more marked in one lung and especially in one lobe. (3) Complicated bronchiectasis with more or less advanced pneumonitis or small multiple bronchiectatic abscesses presenting the classic symptoms—foul sputum, persistent cough, more or less septic appearance, intermittent fever, loss of weight and markedly clubbed fingers. (4) Bronchiectatic abscess, found unilobar, unilateral or diffuse according to the distribution of the disease. There are various other forms depending on the pathology of the disease, the age of the patient and the evolution of the lesions. The distinctions in form are certainly schematic for bronchiectasis is a progressive disease which, untreated, tends to pass gradually from one form to another in most cases.

Treatment of the paranasal sinuses together with hygienic measures, a dry hot climate and postural and bronchoscopic drainage will check the progress in many cases of the bronchitic form. In early uncomplicated bronchiectasis, besides these measures, pneumothorax, phrenicectomy or even a thorocoplasty associated with postural or bronchoscopic drainage of the bronchi and antispirochetal treatment when necessary, have given good results. While these suggestions apply especially to unilateral cases, it has been shown that in many cases of bilateral disease in which there is a decided predominance on one side, the less affected side is greatly improved by the treatment of the more affected one. In the advanced form with pneumonitis and multiple bronchiectatic abscess, if the general condition of the patient permits, there is but one curative treatment—surgical exersis of the diseased portion by lobectomy, cautery, pneumectomy or exteriorization and ligation of the involved parenchyma of the lung.

Bronchiectasis being a chronic and slowly progressive disease which is amenable to progressive treatment, this treatment should be applied even to advanced cases and the patient thus prepared for the more radical surgery. If this is done indications for lobectomy will become less frequent and the present prohibitive mortality following the operation will be markedly decreased. Delay may be more dangerous than surgery since if an operation is necessary it is much better to do it while the patient is still in good general condition. The author prepares his patients for the final stage by pneumothorax, phrenicotomy, graded thoracoplasty and, in some cases, ligature of the corresponding pulmonary artery, the results following this method being much more satisfactory than those following a one-stage lobectomy. Death during or just after lobectomy may be due to: (1) shock, cardiac failure or pleural shock; (2) embolism (air or septic); (3) hemorrhage during or after operation; (4) increased pleural pressure during the first days following operation; (5) septic pleurisy and (6) septic mediastinitis.

A detailed account of the author's method of preparation and of operation is given together with a report of two cases chosen because the operations in both cases were performed over two years ago. The results were excellent in both cases.

Factors Concerned in the Prognosis of Pulmonary Tuberculosis. Paul H. Ringer. Southern Medical Journal, March, 1932.

Prognostic attitude depends upon: (1) History; (2) Physical signs; (3) X-ray; (4) General condition of patient; (5) Economic stiuation and intelligence of the patient.

History is not so important in prognosis as it is in diagnosis although a history of many tuberculous deaths in a family makes the forecast more guarded while one of many near relatives recovering from the disease can be assumed to make a more favorable outlook.

Physical signs are uncertain and subject to interpretations by different observers so cannot be relied on entirely in estimating an individual's future progress or regress.

X-ray is of great value in the study of lung conditions but depends upon skillful interpretation of films. It is felt that, on the whole, those patients usually do best whose serial roentgenograms show no further change; prognosis being more uncertain as long as they reveal a change in the process either for better or for worse.

General condition of the patient is more important in prognosis than history or physical signs as it gives a better idea of what is going on at any particular time and just how the patient is reacting to his involvement.

The economic situation and the intelligence of the patient are extremely important factors since 2 to 4 years of working incapacity are often required to achieve apparent arrest. This makes it financially impossible for many patients to recover since even our state, county and municipal sanatoria are rarely financially able to keep a patient more than a year or 18 months. Intelligence too plays a large part as the patient must understand his condition in order to cooperate in his treatment.

We now come to the two most important factors in the ultimate outlook of the patient: (1) Virulence of infection: (2) Degree of resistance. While we actually know very little about infection and resistance, we do know that it is remarkably uniform in its virulence and the virulence tends to remain about the same in any individual case, though the structure of the tubercle and its resistance to stress varies and though the number of infecting bacilli varies widely. We also know very little about resistance and, in spiite of Krause's extensive work, immunity, allergy and activity remain very hard to estimate. Until these problems are solved it will remain impossible to explain the common occurrence on an extensive X-ray picture with an excellent general condition, or the patient with few physical signs who presents evidence of grave toxemia. It will also remain impossible to tell when a change in condition is going to take place so that prognosis will necessarily remain uncertain.

SURGERY AND GYNECOLOGY

Abstracts, Reviews and Comments from LeRoy Long Clinic
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Some Perforations of the Sigmoid of Internal Origin (Des Perforations de l' Anse Sigmoide d' Origine Interne) by G. Aigrot, La Press Medicale, March 2, 1932.

Only perforations having their origin in the lumen of the sigmoid are considered.

1. Perforations Due to Foreign Body in Sigmoid:

(1) A workman of sixty had violent pain in left lower abdomen about 10:00 A. M. Pain became more and more severe. There was vomiting and obstipation. First seen by Aigrot next day at 5:00 P. M., temperature 103.2, puffiness in left iliac fossa, muscular rigidity, pulse 120, cul-de-sac painful to touch.

Operation per incision in left iliaic region disclosed a perforation 1 cm. in diameter in sigmoid through which the tooth of a comb protruded. Much feces in peritoneal cavity, with extensive peritonitis, there being no protective adhesions. Perforation closed. Drainage. Death the following morning in the midst of a fulminating peritonitis.

2. Perforations from Ulcers:

(1) Man of 65. Left inguinal hernia for some time. Five or six days before coming to hospital had good deal of pain in region of hernia, but being able to expel gas did not call a physician. Physician saw patient the day he entered hospital. There was swelling, redness, oedema, tenderness, in left inguinal area. Temperature 103. Operation disclosed a small abscess surrounded by adhesions, and at the bottom of the abscess a perforation, the diameter of a fifty centime piece (about size of dime) in the sigmoid. Around it the pathology was characteristic or simple ulcer of the large intestine described by Quenu and Pierre Duval in 1902. Suture and drainage, followed by recovery.

(2) A vigorous young man of 28, had sudden agonizing pain in the umbilical region about 3:00 P. M. At the hospital five hours later crying out with pain, notwithstanding hypodermatic injection morphine. Legs drawn up, abdomen like wood. No fever. Temperature 100. Diagnosis, perforation stomach.

Immediate operation disclosed normal stomach, duodenum, gall bladder, appendix, but there was a large perforation of an ulcer of sigmoid from which much fecal material was discharged. The affected sigmoid was brought to outside as in colostomy, drains placed in abdomen. The patient died the next day.

In this case there was a history of a violent kick in the umbilical region of the abdomen by a horse six months before. Aigrot remarks that this fact can be taken as credible since there was no insurance.

The description of the various forms of simple ulcer of the large intestine by Duval is quoted: "The form of the ulcer may be oval, round, irregular, jagged borders or perpendicular borders as if fashioned by a punch; they are thick, calloused, the base of the ulcer indurated and grayish garnet; around the ulcer the mucous membrane is souple and its confines even rose colored and without any marked alterations."

3. Perforations Due to Diverticula:

(1) Young girl of 15. Pain in left iliac region, fever and signs resembling appendicitis. Admitted to hospital eight days later with mass in left iliac region, temperature 103.2. Rectal touch showed mass high. Incision in left iliac region. Large abscess, pus, fecal odor, a sloughing diverticulum 5 cm. long in bottom of abscess. Ligation of base, stump inverted, drainage. Recovery in five weeks.

(2) Another case exactly similar in young girl of same age is reported.

(3) A woman of 66, had pain in the right abdomen, soon followed by a temperature of 103. A year before there had been an attack of abdominal pain, followed by jaundice.

From day to day the condition became more grave. Admitted to hospital on the ninth day. At that time great distention of abdomen, vomiting, partial intestinal occlusion. The tentative diagnosis was suppurative cholecystitis with leakage and abscess in right lower abdomen. Operation revealed an abscess communicating with a gangrenous diverticulum of sigmoid, with leakage of fecal material at base. The cecum and cecal appendix formed the roof of the abscess. The base of the diverticulum was ligated and some gauze wicks placed in abscess cavity. The patient died six hours after operation.

(4) An old man of 80, came to hospital forty-eight hours after beginning of attack in which there were vomiting, absence of gas per rectum, pain and swelling in connection with a left inguinal hernia. The pulse was good. Tentative diagnosis, strangulated hernia. The sac was opened. Pus and liquid feces escaped, the latter coming from a perforation of a loop of signoind at the base of a short diverticulum that had the appearance of a very small walnut. It was gangrenous at one point, but for the most part was glued to sigmoid. This mass was removed by dissection, the opening in sigmoid closed, the raw area peritonealized, and a drain put in. There was rapid recovery.

4. Perforations Due to Cancer:

(1) A woman of 48. Occlusion intestine for two weeks. Enormous distention abdomen, incessant vomiting, signs of obstruction in sigmoid, temperature 101.5. Operation March 22, 1922, under local anesthetic. Incision left iliac region. Annular neoplasm surrounded by omentum containing purulent material. Feces escaping from hole in sigmoid. Mass brought outside abdomen. Resection 15 days later, making artificial anus. Patient alive and well nine years later.

(2) A woman of 65. Occlusion intestine for two weeks. Mass felt by rectal touch. Temperature 103.1. Condition bad. Left iliac incision. Leaking mass lower sigmoid surrounded by abscess. Impossible to mobilize without destroying protecting adhesions. Drainage by gauze wick. Patient died in six days.

(3) A woman of 65, had had obstruction for eight days. Antecedent history indicative of neoplasm of pelvic colon. Rectal touch negative except little tension prerectal area. Temperature 101.5. Operation per incision left iliac region revealed mass in lower sigmoid. Dirty fluid in abdomen. Not able to deliver mass. Wicks placed about it. Cecostomy. Death in twelve days.

The existence of symptomatic abscess in connection with cancer of large intestine has been well known since 1850, when Bernutz published an article about them in Archives de Medicine. They may be stercoreal from the first, or take origin from an adenophlegmon. This makes no difference in treatment which is surgical, and should be carried out as soon as possible. The ideal procedure is to bring the entire mass through the operative incision and fix it on the outside of abdominal wall, draining it, followed by resection and artificial anus when infection has subsided and the patient is in better condition.

The first operation is always an emergency procedure. It ought to be done as rapidly as possible.

Comment: A colostomy well above the point of obstruction is of great service when there is pericancerous infection and fixation. Drainage of the infected area may be accomplished, if necessary, through a separate incision, the final operative procedure to be determined by the circumstances.

We do not believe that gauze wicks (les meches), alone, should be depended upon for drainage of an infected area, but when they are employed with rubber dams after the method of Coffey in his "quarantine" procedure, the results are very satisfactory.

LeRoy Long.

Some Experiences with Oleothorax. By Harry C. Ballon, St. Louis, Mo. American Journal of Surgery, April, 1932, Volume XVI, No. 1.

This article is of interest to the surgeon in that the method described "may be used to help stabilize the mediastinum preparatory to a thoracoplasty, or as an adjunct to an incomplete thoracoplasty."

It is related that Bernou, in July, 1921, injected oil into the pleural cavity of a patient suffering from pulmonary tuberculosis, and who had developed a bronchopleural fistula during the course of pneumothorax treatment. The purpose of the injection was to bring about compression and possibly disinfection. Bernou called the procedure "Oleothorax."

Ballon, working in the Chest Service, Department of Surgery, Barnes Hospital, has employed U.S.P. liquid paraffin, usually containing 5% gomenol. The oil is sterilized by heating. For better roentgenographic visualization, a few c.c. of lipiodol may be added.

Oleothorax is employed "as a means of obtaining compression which was no longer possible by other methods." The amount of oil used varies from a few c.c. to 100 c.c. or more, repeating as necessary, after determining the tolerance of the patient. The method "is contraindicated in the presence of a large bronchial fistula and during the acute stage of serofibrinous pleurisy."

While the antiseptic effect of oleothorax is not emphasized, the case of one patient is reported in which the injection of a large amount apparently prevented a secondary infection of a tuberculous empyema.

The technique is simple. The pleura is punctured under local anesthesia. If there is pneumothorax, some of the air is aspirated. It is not always necessary to aspirate pus, if present, but where there is a large amount some should be aspirated. A small injection is given at first to determine the tolerance of the patient. It is best to have fluoroscopic control. "High intrapleural pressure should be avoided."

Comment: In addition to the mechanical effect, it is interesting to speculate upon the inhibition of bacterial growth by liquid paraffin. In 1914, I accidentally opened the hip joint in the presence of a periarticular abscess following a bullet wound. I put two small rubber tubes into the joint cavity and injected liquid paraffin through them twice a day for two days, when the tubes were removed and the paraffin injected in the tube tracts until they closed. The patient recovered with a good movable hip joint. Since then I have employed the method routinely after operations for suppurative arthritis, and it has served me well in other suppurative processes.

LeRoy Long.

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1. Ectopic Spleen. By M. Oulie. 2. The Morphologic Variations of Mediasto-Pulmonary Tumors. By M. M. Grandeclaude, Nuytten and Emery.

Reported at the meeting of the Anatomical Society, Paris, January 7, 1932, and published in LaPresse Medicale, January 30, 1932.

1. Oulie reported an operation in the case of a young woman for a syndrome indicating intestinal occlusion, accompanied by the presence of a voluminous and painful tumor above the pubes. The clinical diagnosis was ovarian cyst with torsion of the pedicle.

At operation it was found that the tumor was an ectopic spleen with torsion of the pedicle. It was thought that the symptoms of occlusion were reflex phenomena.

2. Grandeclaude, Nuytten and Hemery call attention to the morphologic variations of mediastopulmonary tumors, and point out that certain tumors classed as sarcomata by some authors are in reality of epithelial origin. These tumors are temporarily radio sensitive, but the regression is short, thus differing from other tumors of the mediastinum and lungs of ganglionary origin, these latter being much more radio sensitive.

In the discussion, M. Rene Huguenin remarks that there is unquestionably a variety of tumors of the lung which are epitheliomata, but which present the morphologic aspects of sarcomata. These tumors are very polymorphous, and he speaks of them as pseudo-sarcomata. He believes that they correspond clinically to a type which grows rapidly and spreads out in the free spaces of the mediastinum.

NOTE: There is great need on the part of both internists and surgeons for a better knowledge of intra-thoracic tumors. Not long ago I saw at autopsy a massive mediastinal malignancy involving the entire left lung in a man of 72. Up to a short time before death the clinical diagnosis had been pulmonary tuberculosis.

LeRoy Long.

Traumatic Lesions of the Abdominal Viscera. By J. William Hinton, New York. American Journal of Surgery, April, 1932, Volume XVI, No. 1.

The author divides the traumatic lesions of the abdomen into two groups:

1. Those resulting from penetrating objects, such as bullets and stab wounds. He believes that it is the concensus of surgical opinion that, usually, an immediate operation should be done when such wounds exist.

2. Traumas from blows, kicks, falls, violent abdominal contact with heavy objects. A list of 84 cases belonging to this group, admitted to the Fourth Surgical Division of Bellevue Hospital in eleven years, is analyzed. Of these, 64 were injuries of the solid organs and 20 of the hollow viscera.

The kidney was more frequently injured than any other solid organ, next the spleen and then the liver, but the last two were nearly the same.

The small intestine was more frequently injured than the bladder or large intestine.

There were 3 cases of retroperitoneal hemorrhage without kidney involvement.

Attention is called to the importance of determining whether abdominal symptoms may not be due to chest injuries—lungs, diaphragm.

The author takes a firm stand for conservative management in uncertain borderline cases after non-penetrating traumas of the abdomen. He states that Dr. Carl G. Burdick, Director of the Fourth Surgical Division, pointed out, seven years ago, the "inadvisability of submitting cases in which a questionable diagnosis existed to immediate laparotomy."

The author believes very strongly that injuries of the solid viscera usually do well if no operation is performed, and that they die often because of ill advised surgical operations in the presence of shock. In proof, 23 kidney injuries in this group recovered without operation, and there were much better results in liver and spleen injuries in those cases treated conservatively than in those where operations were done.

In conclusion, the author makes the definite statement that where one is reasonably certain that there has been injury of a hollow viscus an immediate laparotomy should be done. He insists, however, that when the symptoms are masked, or there are evidences of injury of liver, spleen, kidney or retroperitoneal area, an immediate operation should not be done.

Comment: This is a very important article. The conclusions of the author correspond exactly with our experience. We believe that adequate investigation will disclose whether there are injuries of the hollow viscera. If such injuries can be excluded, it is our distinct conviction that patients do far better without immediate operations, provided proper non-surgical treatment is given in a definite way.

LeRoy Long.

Concerning Thrombophlebitis Caused by Effort (A Propos de la Thrombophlebitis par Effort). By Paul Moure and Rene-Henri Martin. La Presse Medicale, March 9, 1932.

In La Presse Medicale, No 5, Page 84, 1932, there was a most remarkable article by Chifoliau and Folliasson about a young man who suddenly developed great swelling of one arm, with numbness, a little fever, moderate pain and complete loss of function, after unusual physical effort. The diagnosis was "Thrombophlebitis caused by effort." The authors of the article reported that a long thrombus was removed from the axillary vein, the operation being followed by complete recovery.

In the present article Moure and Martin, after referring to the report made by Chifoliau and Folliasson, and to a like former report by Lenormant and Mondor, (La Presse Medicale, 1931, No. 91, Page 1669) relate the particulars about a patient in whose case the symptoms and signs were exactly like those in the patient referred to above. Influenced by the report of Chifoliau and Folliasson, a diagnosis of thrombophlebitis from effort was made, but operation did not confirm the diagnosis. The following is a synopsis of the case:

An electrician 21 years of age entered hospital because of numbness and swelling of entire right arm. Three weeks before, he was partially overcome by gas while in bed, and spent a restless night with disordered movements. The next morning the arm was completely numb and swollen.

On admission, arm was oedematous throughout, very white, numb, completely useless. No axillary adenopathy, no pitting on pressure. Temperature from 99.5 F. to 100.4 F.

Radial artery palpable, but brachial not. Pulse 80.

Diagnosis: Thrombophlebitis from effort.

At first, medical treatment—complete rest, elevation arm, leeches, compression. Swelling of forearm disappeared, but that in upper arm constant, particularly on inner side over course of principal vessels.

Believing that there was a thrombus in the axillary vein, exploration through long incision. Both artery and vein perfectly normal. A small tributary vein sectioned near its mouth bled normally.

There was an old, yellowish, ecchymotic infiltration into cellular tissue to inner side of biceps and into the sheath of that muscle. The biceps and coracobrachialis contained yellowish fluid. Closure without drainage.

Gradually, the swelling disappeared and function returned. The patient resumed his occupation two months later.

The final conclusion of the authors is that the swelling and oedma of the arm were due to rupture of lymphatic vessels during the efforts of disordered movements. In that case the swelling is analogous to that which sometimes takes place after operative removal of glands bearing fascia from the axilla.

LeRoy Long.

Anaerobic Streptococci in the Vagina of Normal Clinic Patients. By S. C. Soule, M.D., and T. K. Brown, B. S., M. S., M.D., St Louis, Mo. American Journal of Obstetrics and Gynecology, April 1932, Volume XXIII.

The authors reported a complete bacteriological investigation taken from the vagina of 207 normal pregnant women. They found anaerobic growth in 60 per cent of all patients and anaerobic streptococci were isolated in 40 per cent of all cases. The anaerobic streptococci were definitely more frequent in primiparae than in multiparae.

They feel that it has been definitely shown in Barnes Hospital that anaerobic streptococci can and do give rise to all grades of puerperal sepsis. "The isolation of these organisms in 40 per cent of normal pregnant women confirms the conclusions of Rosowsky that 'these bacteria live saprophytically in the vagina, but under certain conditions following abortion or delivery they can cause severe sickness.'"

The authors have found that there is a definite improvement in their morbidity statistics following the prophylactic use of vaginal germicidal solutions during labor. (Either mercurochrome,

iodine and glycerin or glycerin and acriflavine were used).

They conclude from their experience that puerperal infections due to anaerobic streptococci are frequent and often serious.

Comment: This is a valuable piece of work, helping to prove that anaerobic streptococci live saprophytically in the vagina, and are the causative organisms in many cases of puerperal sepsis and especially in parametritis following abortion.

—Wendell Long.

The Bacteriology and Pathology of Chronic Cervicitis. By Harry Oliver Maryan, B.S., M.D., Chicago, Ill., American Journal of Obstretics and Gynecology, April, 1932, Volume XXIII.

The author has presented an excellent review of the literature on the subject and has made a comprehensive bacteriological investigation of cervical tissue enucleated by the Sturmdorf technic. This has been closely correlated with the pathology of the tissue so obtained.

Their summary of findings follows:

1. The organisms isolated are the enterococcus.

2. Because of the methods employed we feel that the organisms isolated are from the depths of the compound racemose glands.

3. These organisms are highly heat resistant, of relative low virulence and tendency to live long.

4. In 80.4 per cent of cases the cultures were positive and in 19.6 per cent they were negative.

5. Paraffined sections stained with hemotoxylin, and eosin, and Van Gieson methods were done routinely for general study.

6. The bacterial stains used were: (1) Gram-Weigert, (2) Levaditi (mainly for spirochetes). (3) Wolbach-Giemsa, and (4) Brown and Brenn.

7. No bacteria in the tissues were demonstrated in our series of 49 cases of chronic cervicitis.

8. Microscopic sections reveal mild, moderate, recurrent, and intense cellular infiltration and glandular proliferation of the endocervix and the deeper structures.

9. Glandular and follicular erosins were also encountered in many of the sections.

10. Chronic cervicitis is preferable to the term chronic endocervicitis, as the deeper structures are generally involved.

Comment: This also is a valuable study which helps to form the basis for the proper diagnosis and care of cervical lesions.

—Wendell Long.

A Study of the Menstrual Histories of 2,282 University Women. By Ruth E. Boynton, M.S., M.D., Minneapolis, Minn. American Journal of Obstetrics and Gynecology, April, 1932, Volume XXIII.

This is an interesting article largely from the standpoint of statistics. It was found that the incidence of dysmenorrhea in 2,282 university women was 20.38%. In the small group of student nurses the percentage of dysmenorrhea was 6.98. The amount of physical exercise had no significant relation to dysmenorrhea.

Posture showed no significant relation to dysmenorrhea, although the percentage of dysmenorrhea in the poorer posture groups was lower than those of better posture.

The percentage of dysmenorrhea occurring in a group of students classified as "high strung" was lower than in a control group not so classified.

The systolic blood pressure, the mean height-weight percentage, and the mean hemoglobin percentage, were significantly lower for those having dysmenorrhea than for the group who had no pain. The mean vital capacity percentage was slightly higher for the dysmenorrhea group. That is, the percentage of cases having dysmenorrhea was greatest in the lower blood pressure group, the lower height-weight percentage group and the lower hemoglobin group.

—Wendell Long.

Tuberculous Endometritis. Report of Cases. By Abraham Heinrich, M. D., Brooklyn, N. Y. American Journal of Obstetrics and Gynecology, April, 1932, Volume XXIII.

This author presents two cases of tuberculous salpingitis associated with positive microscopic diagnosis of tuberculosis in the fundus. He quotes Norris, who holds the view that the spread of tuberculosis from the tubes to the endometrium is by direct continuity through the opening of the tubes into the uterus. He feels that a complete hysterectomy is advisable as soon as the diagnosis of tuberculous salpingitis is made, because of the early uterine involvement.

Comment: As far as therapy is concerned, tuberculous disease of the tubes and uterus offers an extremely difficult situation in each individual case. It is my feeling that, if operated upon, a thorough procedure should be done, including the removal of both tubes and uterus. However, in certain cases the improvement of general resistance and general tuberculosis therapy is probably to be advised over any operative interference.

—Wendell Long.

Menorrhagia Due to Hypothyroidism. By W. C. Waters, M.D., and George A. Williams, M.D., Atlanta, Ga. American Journal of Obstetrics and Gynecology, April, 1932, Volume XXIII.

These authors have considered the question of menorrhagia due to hypothyroidism, giving a brief resume of the literature on the subject, outlining the history in six cases, and making appropriate comment upon the diagnosis and treatment of such condition.

The cases included various ages and various causes for the hypothyroidism. For example, one was an 18 year old girl who had had radiation years before because of profuse menstruation and presented herself to the authors with a menstrual flow constant and excessive for three months. Another was a woman of 55 who had a history of painful swelling at the base of the neck at 12 which had to be lanced and was probably an acute thyroiditis. Another was a woman of 24 who was undernourished and anemic with a minus 22 basal metabolic rate and profuse menstrual periods of seven days, every 21 to 25 days. The other three cases were in the fourth decade, and mention is made in two of them of slight obesity.

The basal metabolic rate in these cases is not far below normal.

In the six cases reported, complete clinical relief was obtained by administration of thyroid extract. The authors make the statement that, "Excessive bleeding is the menstrual disturance most frequently associated with hypothyroidism, amenorrhea rarely, if ever, occurring when the thyroid gland alone is deficient in function." He feels that patients of any age, whose menorrhagia cannot be attributed to pelvic pathology should have a therapeutic test with thyroid gland administration before more radical measures are instituted. He points out that hypothyroidism may occur in the presence of an apparently normal basal metabolism, and feels that the response of the symptoms, including menorrhagia, to substitution therapy is the most reliable evidence of deficiency of thyroid gland function.

Comment: These authors have made some rather sweeping statements but there is no question but that many cases of menorrhagia occur in people with hypothyroidism and that administration of thyroid reduces the menorrhagia in those instances. It is also true that many women in the fourth decade have essentially normal basal metabolic rates associated with obesity of varying degrees, and these patients will also have considerable reduction in menorrhagia from weight loss and thyroid therapy. Despite the fact that these authors are moderately over enthusiastic, there is much value in this etiological factor for many cases of menorrhagia, and consequently much good can be done in these situations with the administration of thyroid.

—Wendell Long.

"WHEN, AS AND IF"

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ANGINAL PAIN AS A RESULT OF DIGITALIS ADMINISTRATION

G. K. Fenn and N. C. Gilbert, Chicago (Journal A. M. A., Jan. 9, 1932), became interested in anginal pain as a result of digitalis administration, by reason of the behavior of a patient who came under their observation about twelve years ago. While this patient was on digitalis treatment, attacks of angina pectoris suddenly developed. When the digitalis was withdrawn, the attacks ceased and the procedure was repeated several times with always the same result. The patient had a previous history of angina pectoris, and at this time the belief of several authors was followed in assuming that anginal attacks often stop as decompensation comes on and reappears as compensation is reestablished. In the light of further experience, the authors suspect that digitalis may be responsible for the appearance of angina in many cases in which that drug is used to restore compensation. They report the results of experiments that they performed on dogs which would seem to justify their contention that digitalis is capable of producing anginal pain. That constriction does not occur in every case does not appear to them to be surprising. The action of digitalis is dependent on a great number of variables and the regulation of the coronary flow is under a very complicated mechanism, and every automatic adjustment must be brought to bear to prevent the occurrence of a condition that is of such great physiologic disadvantage to the organism. That it does occur in some cases seems to the authors to be beyond question, but they have discovered no way to forecast its occurrence in any given case.

PRACTICAL POINTS IN OPHTHALMIC PRACTICE: STUDY OF RECENT FOOD RESEARCHES

Laura A. Lane, Minneapolis (Journal A. M. A., Feb. 27, 1932), sets forth evidence showing that one of the most constant signs of food deficiency is the pigmentation of the conjunctiva and the reduction of the light sense. The retina stores vitamin A, and an avitaminosis causes an increase of lipoids in the rods of the retina and decreases the visual purple. Lack of vitamin A has been responsible for epidemics of hemeralopia, xerophthalmia and keratomalacia. Vitamin A is largely stored in the liver and is much depleted in chronic illness; it appears to be concerned largely with preventing infection. Vitamin B is necessary to good nutrition. Lack of B^1 causes nervousness and irritability, and patients complain of the eyes tiring easily. Vitamin B concentrate added to the diet of those suffering from uveitis of unknown etiology is beneficial. A lack of vitamin C, combined with a calcium deficiency, may be responsible for repeated vitreous hemorrhage af unknown etiology. The mineral salts are potent substances concerned in regulating the physiologic processes of the body. Calcium is more frequently deficient in American diets than any of the other mineral elements. Calcium deficiency occurs in vernal conjunctivitis. The complexity of the protein constituents of foods is shown. Proteins of poor quality can cause ophthalmia. The consumption of carbohydrates is often two or three times the amount required for good nutrition. Excessive use of carbohydrates has been known to cause inflammatory diseases of the eye. Excessive fat diets deficient in mineral elements and vitamins cause hyperplasia of the tissues. The problem of food intake concerns itself with sufficient mineral elements and protective substances to maintain proper equilibrium of the body fluids and tissues.

IODOBISMITOL: SOLUBLE BISMUTH PRODUCT FOR USE IN TREATMET OF SYPHILIS

P. J. Hanzlik, H. G. Mehrtens, Charles Gurchot and C. C. Johnson, with the assistance of Jean Spaulding and D. C. Marshall, San Francisco (Journal A. M. A., Feb. 13, 1932), submit a preliminary report on the properties and actions of iodobismitol, a soluble and injectable preparation of bismuth, containing the bismuth as anion. Theoretical considerations for using bismuth in this form are given. Iodobismitol consists of sodium iodobismuthite (6 per cent) dissolved in ethylene glycol containing sodium iodide (12 per cent). It is injected intramuscularly in doses of 2 cc. containing 0.12 Gm. of iodobismuthite (equal to 0.0236 Gm. of bismuth), a proposed course of treatment consisting of ten injections in about three weeks, to be followed by a rest period and additional courses as further experience may indicate. Used in doses within the therapeutic range, iodobismitol was found to be generally well tolerated locally and systematically, to be fairly rapidly absorbed and excreted, to possess antisyphilitic action, to penetrate the brain of animals, and to appear in the cerebrospinal fluid of human subjects. Accordingly, iodobismitol possesses certain advantages over the bismuth products in current use which contain the bismuth as cation and do not dependably penetrate the brain. The authors believe that iodobismitol appears worthy of clinical trial in the treatment of syphilis, since it offers the possibility of early treatment, and of prevention, of neurosyphilis.

NARCOLEPSY: RESULTS OF TREATMENT WITH EPHEDRINE SULPHATE

John B. Doyle and Luman E. Daniels, Rochester, Minn. (Journal A. M. A., Feb 13, 1932), report a survey that they made of information obtained concerning sixty patients who were given a diagnosis of narcolepsy in the clinic and who had not been treated with ephedrine. The duration of the disorder ranged from one to forty years. No patient had recovered completely. Thirty patients wrote that they had improved. In fourteen instances, however, the improvement was very slight. Twenty-five patients reported that they were the same, and eight that they were worse. Four patients had died. Fifty patients were treated with ephedrine, including those treated by others as well as those treated by the authors. The treatment was a total failure in two instances. Two patients, who at first were improved, no longer appear to receive any effect from the drug. Eight patients have been moderately improved symptomatically. Seventeen patients have made marked symptomatic improvement, and twenty have been completely relieved symptomatically. In the two groups mentioned in the preceding sentence, symptomatic relief continues as follows: in four patients after nine months, in two after eight months, in two patients after five months, in three patients after four months, in six after three months, and in four after two months.

VALUE OF LIVER EXTRACT AND IRON IN ANEMIA OF YOUNG INFANTS

Siegfried Maurer, Joseph Greengard and Cessa Kluver, Chicago (Journal A. M. A., March 26, 1932), found it possible to control the anemias of early infancy by administration of liver extract and iron which contains traces of copper. The administration of iron with traces of copper to anemic infants failed to bring about an improvement in blood in about 50 per cent of cases, and liver alone failed in but 37 per cent. The patients in the latter group made significant improvement in blood after iron was added. Also of those infants of the iron series who had failed to make improvements in blood on the iron and copper mixture, those who received liver extract in addition made good gains. Of the infants who showed improvement on either iron or liver extract or on the two together, sometimes before, but always by the time the improvement in blood was apparent, the general condition definitely changed. Appetite improved, the skin became rosier, and normal turgor appeared. In addition, the infants showed definite psychic changes. Irritability disappeared, activity and alertness increased, and rapid gain in weight occurred. In every instance, liver extract was taken well and gastro-intestinal disturbances, such as vomiting or loose stools, were never observed.

THREE FATAL CASES OF BACILLUS PYOCYANEUS INFECTION

B. S. Kline and A. S. Maschke, Cleveland (Journal A. M. A., Feb. 13, 1932), report three fatal cases of Bacillus pyocyaneus infection that presented characteristic features, including gangrenous and less severe lesions of the skin, most advanced in the anal, rectal or genital areas; general intoxication with profound prostration and, at autopsy, hemorrhagic and necrotic lesions in the skin and viscera, associated with massive local bacterial colonization. One of these cases, which presented agranulocytosis, terminated eighteen days after the onset of symptoms in a previously healthy child. B. pyocyaneus infection, although not of common occurrence, is perhaps less rare than is generally supposed. Clinically it may be confused with a number of skin diseases, including pellagra and lupus erythematosus disseminatus. It must be differentiated from aleukemic leukemia, the purpuras and other diseases. Some progress toward specific therapy has been reported, and it is possible that further studies will reveal methods of preparing bactericidal and antitoxic serums.

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Tucker, J. Marshall — Nash

GREER

Austin, C. W. — Mangum
Border, G. F. — Mangum
Chambers, M. E. — Vinson
Cherry, G. P. — Mangum
Dodson, W. O. — Willow
Hollis, J. B. — Mangum
Jeter, O. R. — Mangum
Lansden, J. B. — Granite
Lowe, J. T. — Mangum
McGregor, F. H. — Mangum
Meredith, J. S. — Mutual
Nelson, J. H. — Granite
Pearson, L. E. — Mangum
Poer, E. M. — Mangum
Shaw, C. C. — 311 Perrine Bldg., Oklahoma City

HARMON

Allgood, John M. — Gould
Hopkins, Samuel W. — Hollis
Husband, Wm. G. — Hollis
Jones, James E. — Hollis
Lynch, Russell H. — Hollis
Ray, W. T. — Gould
Yeargan, Wm. M. — Hollis

HASKELL

Hill, Arthur T. — Stigler
Johnson, Emmett — Kinta
Rumley, J. C. — Stigler
Terrell, Ross F. — Stigler
Turner, Thos. Boyd — Stigler
Williams, N. K. — McCurtain

HUGHES

Atkins, W. D. — Holdenville
Bentley, J. A. — Allen
Davenport, A. L. — Holdenville
Diggs, G. W. — Wetumka

Felix, T. B. ..... Holdenville
Floyd, W. E. ..... Holdenville
Hamilton, S. H. ..... Non
Hemphill, J. A. ..... Wetumka
Hicks, C. A. ..... Wetumka
Mitchell, P. E. ..... Wetumka
Morris, R. D. ..... Allen
Musser, J. F. ..... Calvin
Taylor, W. L. ..... Holdenville
Wallace, C. S. ..... Holdenville

JACKSON

Abernethy, E. A. ..... Altus
Bird, Jesse ..... Eldorado
Brown, Roderick F. ..... Altus
Collier, E. K. ..... Tipton
Crow, Emory S. ..... Olustee
Fox, Raymond H. ..... Altus
Hix, Joseph B. ..... Altus
Humphrey, J. A. ..... Martha
Mabry, E. W. ..... Altus
McConnell, L. H. ..... Altus
Reid, John Robt. ..... Altus
Rudell, Wm. P. ..... Altus
Spears, Claud G. ..... Altus
Taylor, Robt. Z. ..... Blair

JEFFERSON

Browning, W. M. ..... Waurika
Burgess, Wm. C. ..... Ringling
Collins, D. B. ..... Waurika
Derr, J. I. ..... Waurika
Edwards, F. M. ..... Ringling
McPherson, J. M. ..... Terral
Maupin, C. M. ..... Waurika
Mingus, F. M. ..... Ringling
Wade, L. L. ..... Ryan
Watson, J. W. ..... Ryan

JOHNSON

Clark, Guy ..... Milburn

KAY

Armstrong, W. O. Continental Oil Co., Ponca City
Arrendell, C. W. ..... Ponca City
Barker, J. C. ..... Kaw City
Beatty, J. H. ..... Tonkawa
Becker, L. H. ..... Blackwell
Berry, G. L. ..... Blackwell
Browne, H. S. ..... Ponca City
Clift, Merl ..... Blackwell
Denham, T. W. ..... Three Sands
Driver, Geo. ..... Ponca City
Gibson, R. B. ..... Ponca City
Gordon, D. M. ..... Ponca City
Gowey, H. O. ..... Newkirk
Haven, A. R. ..... Blackwell
Hawkins, J. C. ..... Blackwell
Hazen, A. L. ..... Newkirk
Hudson, J. O. ..... Braman
Jones, J. A. ..... Tonkawa
Leslie, W. M. ..... Blackwell
Lipscomb, Pat ..... Ponca City
Mathews, Dewey ..... Tonkawa
McClurkin, W. M. ..... Ponca City
McElroy, Thomas ..... Ponca City
Melinder, D. G. ..... Newkirk
Miller, D. W. ..... Blackwell
Moore, G. C ..... Ponca City
Neal, L. G. ..... Ponca City
Neimann, G. H. ..... Ponca City
Northcutt, C. E. ..... Ponca City
Nuckols, A. S. ..... Ponca City
Risser, A. S. ..... Blackwell
Vance, L. C. ..... Ponca City
Wagner, J. C. ..... Ponca City
Waggoner, E. E. ..... Tonkawa
Walker, I. D. ..... Tonkawa
Wall, J. C. ..... Tonkawa
Werner, J. W. ..... Newkirk
White, M. S. ..... Blackwell
Winters, J. S. ..... Ponca City

KINGFISHER

Cavett, E. R. ..... Loyal
Dixon, A. ..... Hennessey
Gose, C. O. ..... Hennessey
Hodgson, C. M. ..... Kingfisher
Rector, Newton ..... Hennessey
Scott, Frank ..... Kingfisher
Townsend, B. I. ..... Hennessey

KIOWA

Adams, J. L. ..... Hobart
Bonham, J. M. ..... Hobart
Bryce, J. R. ..... Snyder
Gray, Melvin ..... Mt. View
Hathaway, A. H. ..... Mt. View
Land, J. A. ..... Hobart
Lloyd, H. C. ..... Hobart
Miles, E. P. ..... Hobart
Moore, J. H. ..... Hobart
Preston, C. R. ..... Mt. Park
Ritter, J. M. ..... Rooseveit
Snow, C. F. ..... Hobart
Walker, F. E. ..... Lone Wolf
Watkins, B. H. ..... Hobart
Winter, J. D. ..... Hobart

LATIMER

Evins, E. L. ..... Wilburton
Hamilton, E. B. ..... Wilburton
Harris, J. M. ..... Wilburton
Henry, T. L. ..... Wilburton
Rich, R. L. ..... Red Oak

LeFLORE

Baker, F. P. ..... Talihina
Bevil, S. D. ..... Poteau
Booth, G. P. ..... LeFlore
Collins, E. L. ..... Panama
Dean, S. C. ..... Howe
Duff, W. M. ..... Braden
Fair, E. N. ..... Heavener
Hardy, H. ..... Poteau
Head, W. M. ..... Talihina
Hunt, W. J. ..... Poteau
Minor, R. M. ..... Williams
Shippey, W. L. ..... Wister
Woodson, E. M. ..... Poteau

LINCOLN

Adams, J. W. ..... Chandler
Baird, W. D., Jr. ..... Stroud
Baird, W. D. ..... Stroud
Brown, F. C. ..... Sparks
Davis, W. H. ..... Chandler
Erwin, Para ..... Wellston
Hancock, J. M. ..... Chandler
Hannah, R. H. ..... Prague
Hurlburt, E. F. ..... Meeker
Iles, H. C. ..... Prague
Jenkins, H. B. ..... Tryon
Marshall, A. M. ..... Chandler
Nickell, U. E. ..... Davenport
Norwood, F. H. ..... Prague
Robertson, C. W. ..... Chandler
Rollins, J. S. ..... Prague
Sosbee, J. W. ..... Stroud

LOGAN

Allen, Robt. — Guthrie
Barker, Chas. B. — Guthrie
Barker, E. O. — Guthrie
Barker, Pauline — Guthrie
Branson, C. S. — Coyle
Childers, A. G. T. — Mulhall
Gardner, P. B. — Marshall
Goodrich, E. E. — Crescent
Gray, Dan — Guthrie
Hahn, L. A. — Guthrie
Hill, C. B. — Guthrie
Larkin, H. W. — Minco
LeHew, Jr., J. Leslie — Guthrie
Melvin, J. L. — Guthrie
Miller, W. C. — Guthrie
Petty, C. S. — Guthrie
Ringrose, R. F. — Guthrie
Ritzhaupt, L. H. — Guthrie
Souter, J. E. — Guthrie
Trigg, F. E. — Guthrie
West, A. A. — Guthrie

MAJOR

Anderson, J. V. — Fairview
Specht, Elsie L. — Fairview

MARSHALL

Haynie, W. D. — Kingston
Holland, J. L. — Madill
Logan, J. H. — Lebanon
Robinson, P. F. — Madill
Veazy, J. H. — Madill

MAYES

Adams, S. — Cherry Creek, So. Dakota
Bryant, W. C. — Choteau
Puckett, Carl — 22 W. 6th St., Oklahoma City

McCLAIN

Barger, G. S. — Purcell
Dawson, O. O. — Wayne
Kolb, I. N. — Blanchard
McCurdy, W. C. — Purcell
Royster, Ralph I. — Purcell
Slover, B. W. — Blanchard

McCURTAIN

Barker, N. L. — Broken Bow
Huckabay, C. R. — Idabel
Moreland, J. T. — Idabel
Moreland, W. M. — Idabel
Sherrill, R. H. — Broken Bow
Thompson, J. M. — Walters
Williams, R. D. — Idabel

McINTOSH

Lee, N. P. — Checotah
Little, D. E. — Eufaula
Smith, F. L. — Eufaula
Tolleson, W. A. — Eufaula
West, G. W. — Eufaula

MURRAY

Annadown, P. V. — Sulphur
Bailey, H. C. — Sulphur
Brown, A. P. — Davis
Brown, Byron B. — Davis
Brown, I. N. — Fletcher
Keller, J. R. — Sulphur
Luster, J. C. — Davis
Slover, G. W. — Sulphur
Sprouse, O. W. — Sulphur
Sullivan, A. H. — Sulphur

*Deceased

MUSKOGEE

Ballantine, H. T. — Surety Building
Blakemore, J. L. — Barnes Building
Berry, W. D. — Barnes Building
Bruton, L. D. — Commercial National Building
Burns, B. H. — Warner
Campbell, J. F. — Barnes Building
Coachman, E. H. — 2803 Columbus
DeGroot, C. E. — Manhattan Building
Donnell, R. N. — 626 North "E" Street
Dorwart, F. G. — Barnes Building
Earnest, A. N., U. S. Veterans Hosp., Oteen, N C.
Everly, A. W — Equity Building
Ewing, F W. — Surety Building
Fite, E. H. — Barnes Building
Fite, W. P. — Barnes Building
Fryer, S. J. — Surety Building
Fullenwider, C. M. — Barnes Building
Heitzman, C. W. — Barnes Building
Hamm, S. G. — Haskell
*Harris, A. W. — Surety Building
Holcombe, R. N. — Surety Building
Joblin, W. R. — Porter
Keith, E. S. — Central High School Building
King, F. S. — Surety Building
Klass, O. C. — Surety Building
McAlester, L. S. — Barnes Building
Mitchell, S. E. — Veterans Hospital, Muskogee
Mobley, A. L., Fitzsimmons Hosp., Denver, Colo.
Muller, J. A. — Veterans Hospital Muskogee
Murphy, C. P., U. S. Veterans Hosp., Hines, Ill.
Neely, S. D — Commercial National Building
Nichols, J. T. — Equity Building
Oldham, Jr., I. B. — 426 No. 6th Street
Oldham, Sr., I. B. — 426 No 6th Street
Rafter, J. G. — Manhattan Building
Reynolds, John — First National Building
Rice, C. V. — Barnes Building
Scott, H. A. — Surety Building
Scott, Hugh — Hines, Illinois
Shakelford, T. T. — Haskell
*Stocks, A. L. — 2010 Boston
Thomas, L. M. — Webbers Falls
Thompson, C. A. — Manhattan Building
Thompson, M. K. — Surety Building
Vittum, J. S. — Barnes Building
Walton, F. L. — 302 North 14th Street
Warterfield, F. E. — Commercial National Bldg.
White, J. H. — Surety Building
Wilkiemeyer, F. J. — 2128 West Broadway
White, C. E. — Surety Building
Wolfe, I. C. — 436 North 6th Street

NOBLE

Cavitt, R. A. — Morrison
Evans, A. M. — Perry
Francis, J. W. — Perry
Owen, B. A. — Perry

NOWATA

Dolson, F. R. — Nowata
Lawson, D. M. — Nowata
Prentiss, H. M. — Nowata
Prentiss, M. B. — Nowata
Roberts, S. P. — Nowata
Scott, M. B. — Delaware
Sudderth, J. P. — Nowata
Waters, Geo. A. — Lenapah

OKFUSKEE

Adams, Allen C. — Weleetka
Bloss, C. M. — Okemah
Bombarger, C. C. — Paden
Brice, M. O. — Okemah
Cochran, C. M. — Okemah

Dovell, John C. ——— Paden
Jenkins, W. P. ——— Cromwell
Kennedy, J. A. ——— Okemah
Keys, Robert ——— Okemah
Lucas, A. C. ——— Castle
Melton, A. S. ——— Okemah
Moyse, J. L. ——— Castle
Pemberton, J. M. —2400 So. Harvey, Okla. City
Preston, J. R. ——— Weleetka
Preston, T. R. ——— Weleetka
Spickard, L. J. ——— Okemah

OKLAHOMA

Adams, Robert H. ——— 210 West Commerce
Alford, J. M. ——— Medical Arts Building
Akin, R. H. ——— Medical Arts Building
Allen, E. P. ——— Osler Building
Andrews, Leila E. ——— Osler Building
Arrington, C. T. ——— 805 North Walnut
Bailey, F. M. ——— 1219 West 21st
Bailey, W. H. ——— 300 W. 12th
Balyeat, R. M. ——— 1200 N. Walker
Barker, Chas. E. ——— Osler Building
Bates, C. E. ——— Key Building
Batchelor, John J. ——— Medical Arts Building
Berry, C. N. ——— Medical Arts Building
Beyer, M. R. ——— 2006 W. 39th
Binkley, J. G. ——— Medical Arts Building
Birge, Jack P. ——— St. Anthony Hospital
Blachley, C. D. ——— Medical Arts Building
Blachley, Lucille S. —— 408 Medical Arts Building
Blesh, A. L. ——— 300 W. 12th
Boggs, Nathan ——— Perrine Building
Bolend, F. J. ——— 1200 N. Walker
Bolend, Rex ——— Medical Arts Building
Bondurant, C. P. ——— Medical Arts Building
Bonham, Wm. L. ——— Medical Arts Building
Borecky, Geo. L. ——— Medical Arts Building
Bradley, H. C. ——— Perrine Building
Branham, D. W. — 403 W. 51st, Philadelphia, Pa.
Brewer, A. M. ——— Perrine Building
Brittain, Fannie Lou ——— Medical Arts Building
Brown, Gerster Wm. ——— Perrine Building
Brundage, C. L. ——— Medical Arts Building
Buchanan, Thos. A. ——— American Nat'l Bldg.
Burton, John F. ——— Osler Building
Butler, H. W. ——— Osler Building
Canada, J. C. ——— 1037 S. W. 27th
Cailey, Leo ——— Medical Arts Building
Cates, Albert ——— Medical Arts Building
Caviness, J. J. ——— Osler Building
Charney, L. H. ——— 132 W. 4th
Chase, A. B. ——— Colcord Building
Christian, Paul C. ——— 518 Key Building
Clark, Fred H.
U. S. Veterans Hospital, Aspinwall, Pa.
Cloudman, H. H. ——— Medical Arts Building
Clymer, Cyril E. ——— Medical Arts Building
Coley, A. J. ——— Medical Arts Building
Collins, H. D. ——— Medical Arts Building
Cooper, F. M. ——— Medical Arts Building
Crawford, Paul H. ——— 441 N. W. 12th
Cunningham, S. R. ——— Medical Arts Building
Curtis, S. J. ——— 215½ S. W. 25th
Daily, H. J. ——— Medical Arts Building
Davis, C. E. ——— Medical Arts Building
Davis, E. P. ——— First Nat'l Bank Building
DeMand, F. A. ——— Medical Arts Building
Dersch, Walter H. ——— Medical Arts Building
Dickson, Green K. ——— 1200 N. Walker
Dill, Francis E. ——— Medical Arts Building
Dougherty, Virgil F. —— Gorel, Abyssinia, Africa
Dowdy, T. W. ——— Medical Arts Building
Duncan, D. G. ——— Medical Arts Building
Early, R. O. ——— Medical Arts Building
Eastland, W. E. ——— Medical Arts Building
Eley, N. Price ——— Medical Arts Building
Emenhiser, Lee K. ——— 1200 N. Walker
Epley, C. O. ——— 717 North Robinson
Erwin, F. B. ——— Medical Arts Building
Eskridge, Jr., J. B. ——— Osler Building
Fagin, Herman ——— Medical Arts Building
Faris, Brunel D. ——— First Nat'l Building
Ferguson, E. Gordon ——— Medical Arts Building
Ferguson, E. S. ——— Medical Arts Building
Field, C. H. ——— Medical Arts Building
Fishman, C. J. ——— 132 W. 4th
Fitz, R. J. ——— Taming, Fu Hoppe, No. China
Flesher, J. H. ——— Edmond
Foerster, H. A. ——— 103½ W. Main, Ada
Fowler, W. A.
23½ N. Block St., Fayetteville, Ark.
Fox, Fred T. ——— 501 W. 12th
Frierson, S. E. ——— Medical Arts Building
Fuller, W. B. ——— 1312½ S. Agnew
Fulton, Geo. ——— American Nat'l Building
Garrison, Geo. H. ——— Osler Building
Gee, O. J. ——— Medical Arts Building
Glomset, John L. ——— Plaza Court
Goldfain, E. ——— 717 N. Robinson
Goodwin, R. Q. ——— Medical Arts Building
Graening, P. K. ——— First National Building
Gray, Floyd ——— Osler Building
Gray, J. Worth ——— 225 Liberty Nat'l Building
Gregory, M. S. ——— Medical Arts Building
Guthrie, A. L. ——— 1200 N. Walker
Hall, C. H. ——— Medical Arts Building
Hammonds, O. O. ——— Medical Arts Building
Haney, A. H. ——— Medical Arts Building
Harbison, Frank ——— Terminal Building
Harbison, J. E. ——— Terminal Building
Harris, H. W. ——— Medical Arts Building
Haskett, Paul E. ——— Hales Building
Hatchett, J. A. ——— Medical Arts Building
Hathaway, E. P. ——— 300 W. 12th
Hayes, B. A. ——— Osler Building
Hazel, Onis G. ——— University Hospital
Heatley, J. E. ——— Medical Arts Building
Hetherington, A. J. ——— 2014 Gatewood Ave.
Hinchee, G. W. ——— 1415 W. 34th
Holliday, J. R. ——— 1200 N. Walker
Hood, F. Redding ——— Osler Building
Hooper, W. F. ——— 1804 Linwood Blvd.
Howard, R. M. ——— 1200 N. Walker
Howell, C. A. ——— Perrine Building
Hicks, Fred B. ——— Medical Arts Building
Hirshfield, A. C. ——— Medical Arts Building
Hunter, Geo. ——— Wewoka
Hyroop, Gilbert L. ——— Medical Arts Building
Jacobs, M. F. ——— Medical Arts Building
Janco, Leon ——— 10 West Park
Jeter, Hugh G. ——— Osler Building
Jolly, W. J. ——— 614 W. 14th
Jones, Hugh C. ——— Medical Arts Building
Keller, W. F. ——— Medical Arts Building
Kelly, John F. ——— Medical Arts Building
Kelso, J. W. ——— Medical Arts Building
Keltz, Bert F. ——— Medical Arts Building
Kernodle, S. E. ——— 119 W. 5th
Kimball, Geo. H. ——— Colcord Building
Knowles, Charles E. ——— Medical Arts Building
Kuchar, V. ——— Hightower Building
Kuhn, John F. ——— Medical Arts Building
Lain, E. S. ——— Medical Arts Building
LaMotte, G. A. ——— Colcord Building
Lane, L. C. ——— First National Building
Langston, Wann ——— Medical Arts Building
Lawson, N. E. ——— Medical Arts Building
Lee, C. E. ——— Medical Arts Building
Lehmer, Elizabeth E. ——— 132 West 4th
Lewis, A. R. ——— Hightower Building
Lewis, Edwin ——— Woodward

Lingenfelter, F. M. — Osler Building
Little, John R. — 501 West 12th
Long, LeRoy — Medical Arts Building
Long, LeRoy Downing — Medical Arts Building
Long, Ross David — 945 West 13th
Long, Wendell — Medical Arts Buiding
Love, Robert S. — Medical Arts Building
Lowry, Dick — Osler Building
Lowry, Tom — Osler Building
Loy, C. F. — Perrine Building
Lyon, J. I. — Edmond
Mabry, E. D. — Equity Building
MacCabe, R. S. — Medical Arts Building
MacDonald, J. C. — 300 W. 12th
Margo, Elias — 717 N. Robinson
Martin, Howard — Perrine Building
Martin, Joseph T. — 1200 N. Walker
Mathews, G. F. — State Capitol Building
McBride, E. D. — 717 N. Robinson
McGee, J. P. — Osler Building
McHenry, D. D. — Medical Arts Building
McHenry, L. C. — Medical Arts Building
McLauchlin, J. R. — Medical Arts Building
McNeill Philip M. — Medical Arts Building
Miles, W. H. — City Hall Building
Miller, N. L. — Medical Arts Building
Mills, R. C. — City Hall Building
Moffitt, John A. — University Hospital
Moor, H. D. — 801 E. 13th
Moore, C. D. — Perrine Building
Moore, Ellis — Medical Arts Building
Moorman, Floyd — 1200 N. Walker
Moorman, L. J. — Osler Building
Morgan, C. A. — First Nat'l Building
Morledge, Walker — 105 Osler Building
Moth, M. V. — American Nat'l Building
Mraz, J. Z. — 300 W. 12th
Musick, E. R. — Medical Arts Building
Musick, V. H. — 217½ W. 25th
Murdock, R. L. — Medical Arts Building
Myers, Ralph — Osler Building
Nagle, Patrick S. — Medical Arts Building
Newton, L. A. — Medical Arts Building
Nicholson, B. H. — 300 W. 12th
Noell, Robert L. — 900 W. Main
Nunnery, E. E. — 2531½ S. Robinson
O'Donoghue, D. H. — Medical Arts Building
Padberg, J. W. — 1800 W. 16th
Parks, K. G. — Medical Arts Building
Paulus, D. D. — 300 W. 12th
Payte, J. I. — Medical Arts Building
Penick, G. — Colcord Building
Phelps, A. S. — Medical Arts Building
Pine, J. S. — Medical Arts Building
Points, Blair — Luther
Postelle, J. M. — Medical Arts Building
Pounders, Carroll M. — 1200 N. Walker
Price, J. S. — Osler Building
Reck, John A. — Colcord Building
Reed, Horace — Osler Building
Reed, Jas. R. — Medical Arts Building
Reichman, Ruth S. — Medical Arts Building
Riely, Lea A. — Medical Arts Building
Riley, J. W. — 119 W. 5th
Rinkle, H. J. — Osler Building
Robinson, J. H. — 300 W. 12th
Roddy, John A. — Ramsey Tower
Roland, M. M. — Medical Arts Building
Rolater, J. B. — Cave Springs, Ga.
Rosenberger, F. E. — 208 Security Building
Rountree, C. R. — 1200 N. Walker
Rucks, W. W. — 300 W. 12th.
Rucks, Jr., W. W. — 300 W. 12th
Ruhl, A. M. — Edmond
Runkle, R. E. — Perrine Building
Sackett, L. M. — Perrine Building
Salsbury, C. L. — 200 E. 14th
Salmon, A. L. — 1200 N. Walker
Sands, A. J. — Choctaw
Sanger, F. A. — Key Building
Sanger, F. M. — Key Building
Sanger, Winnie M. — Key Building
Sewell, Bennett N., Gordon Bldg., St. Charles, La.
Shelton, J. W. — Medical Arts Building
Shuler, A. C. — Fitzsimmons Hosp, Denver, Colo.
Smith, Chas. A. — Medical Arts Building
Smith, Delbert G. — Medical Arts Building
Smith, L. L. — 2915 S. Harvey
Smith, M — 1400 Classen Blvd.
Snow, J. B. — Osler Building
Starr, N. S. — Medical Arts Building
Starry, L. J. — 1200 N. Walker
Stillwell, Robt. J. — First Nat'l Building
Stone, S. N. — Edomnd
Stout, Marvin E. — 209 W. 13th
Strader, S. E. — Medical Arts Building
Strother, S. P. — 120 N. W. 23rd
Sullivan, Ernest — Hightower Building
Sullivan, E. S. — Medical Arts Building
Tabor, Geo. R. — First Nat'l Building
Taylor, C. B. — Medical Arts Building
Taylor, William — Osler Building
Thompson, Waymon J. — Osler Building
Thuringer, Joseph M. — 801 E. 13th
Todd, H. C. — Colcord Building
Townsend, C. W. — Medical Arts Building
Turner, Henry H. — 319 Osler Building
Underwood, E. L. — 516 Hales Building
Valberg, E. R. — Perrine Building
Von Wedel, C. O. — Colcord Building
Wails, T. G. — Medical Arts Building
Walker, J. L. — First Nat'l Building
Wallace, W. J. — Medical Arts Building
Warmack, J. C. — 1615 N. Robinson
Weir, M. W. — Ramsey Tower
Wells, Eva — Medical Arts Building
Wells, W. W. — Medical Arts Building
West, W. K. — Osler Building
Westfall, L. M. — Medical Arts Building
White, Oscar P. — Osler Building
White, Phil — 310-311 Perrine Building
Wildman, S. F. — Medical Arts Building
Wilkins, Harry — Medical Arts Building
Williams, H. M. — Medical Arts Building
Williams, L. C. — Osler Building
Williamson, W. H. — First Nat'l Building
Wilson, E. C. — Medical Arts Building
Wilson, K. J. — Medical Arts Building
White, Arthur W. — Medical Arts Building
Wolff, J. P. — Medical Arts Building
Woodward, Neil W. — Osler Building
Wright, Harper — 240 W. Commerce
Yeakel, E. L. — Medical Arts Building
Young, A. M. — Perrine Building

OKMULGEE

Alexander, Lin — Severs Building
Alexander, T. C. — Severs Building
Bollinger, I. W. — Henryetta
Berry, Thos. M. — 5th and No. Morton
Boswell, H. D. — 509 W. Cummings
Carloss, T. C. — Morris
Carnell, M. D. — Commerce Building
Cooke, C. H. — Okmulgee Building
Cott, W. M. — Commerce Building
Edwards, J. G. — Commerce Building
Glismann, M. B. — McCulloch Building
Holmes, A. R. — 414½ West Main
Hudson, W. S. — Kennedy Building
Kilpatrick, G. A. — 420½ West Main
Leslie, S. B. — 108 E. Main
Matheney, J. C. — Commerce Building

McKinney, G. Y. — 414½ West Main
Milroy, J. A. — 119 S. Delaware
Ming, C. M. — 220 S. Morton
Mitchener, W. C. — 220 S. Morton
Nelson, J. P. — Schulter
Raines, H. L. — McCulloch Building
Randell, D. M. — Commerce Building
Randell, H. O. — Commerce Building
Rembert, J. J. C. — McCulloch Building
Robinson, J. C. — 414½ W. Main
Sanderson, W. C. — Pharaoh Building
Shelton, Thos. H. — Okmulgee Building
Simpson, N. N. — 802 West Broadway
Stark, W. W. — 220 S. Morton
Torrance, L. B. — 205½ W. 7th
Vernon, W. C. — 220 S. Morton
Wallace, V. M. — Morris
Watson, F. S. — Commerce Building
Watson, W. S. — Commerce Building

OSAGE

Aaron, W. H. — Pawhuska
Alexander, E. T. — Barnsdall
Barritt, R. J. — Pawhuska
Baylor, R. A. — Fairfax
Caton, C N. — Wynona
Chase, W. W. — Barnsdall
Colley, T. J. — Hominy
Dozier, B. E. — Webb City
First, F. R. — 1133 S. Harvard, Tulsa
Goss, G. W. — Pawhuska
Govan, T. P. — Pawhuska
Guild, C. H. — Shidler
Hemphill, Paul — Pawhuska
Karasek, M. — Shidler
Keyes, E. C. — Shidler
Lipe, E. N. — Fairfax
Logan, C. K. — Hominy
Reed, J. M. — Magnolia Springs, Alabama
Rust, M. E. — Pawshuka
Stanbro, G. E., St. Thomas Hosp., Nashville, Tenn.
Sullivan, B. F — Barnsdall
Summers, H. L. — Marion, Ill.
Walker, G. I. — Hominy
Walker, Roscoe — Pawhuska
Worten, Divonis — Pawhuska
Williams, C. W. — Pawhuska
Wood, Harold A. — Osage

OTTAWA

Aisenstadt, A. E. — Picher
Barry, J. R. — Picher
Cannon, R. F. — Miami
Chesnut, W. G. — General Hosp., Utica, N. Y.
Colvert, G. W. — Miami
Cooter, A. M. — Miami
Connell, D L. — Picher
Craig, J. W. — Miami
Deans, F. R. — Miami
DeArman, M. M. — Miami
DeArman, Tom M. — Miami
DeTar, Geo. A. — Miami
Dolan, W. M. — Picher
Hampton, J. B. — Commerce
Harper, R. H. — Afton
Helm, F. P. — Miami
Hughes, A. R. — Wyandotte
Jacobs, J. C. — Miami
Jacoby, J. S. — Commerce
Lightfoot, J. B. — Miami
Miller, H. K. — Fairland
McCallum, Chas. — Quapaw
Meriwether, F. V. — Miami
McNaughton, G. P. — Miami
Moon, J. T. — Miami
Pinnell, General — Miami
Ralston, B. W. — Commerce
Russell, Richard — Picher
Shelton, B. Wright — Miami
Smith, Wm. B. — Miami
Wormington, F. L. — Miami

PAWNEE

Beitmen, C. E. — Skeede
Carmichael, M. M. — Osage
Haddox, C. H. — Pawnee
Jones, R. E. — Pawnee
McFarland, H. B. — Cleveland
Robinson, E. T. — Cleveland
Spaulding, Harry B. — Ralston

PAYNE

Adams, James E. — Cushing
Beach, C. H. — Glencoe
Bergegrun, Katherine — Stillwater
Cleverdon, L. A. — Stillwater
Davis, Benjamin — Cushing
Davidson, W. N. — Cushing
Friedemann, Paul W. — Stillwater
Graham, R. N. — Yale
Harris, E. M. — Cushing
Herrington, D. J. — Cushing
Holbrook, W. R. — Perkins
Hudson, W. B. — Yale
Leatherock, R. E. — Cushing
Love, T. A. — Cushing
Manning, H. C. — Cushing
Martin, Emmett O. — Cushing
Martin, John W. — Cushing
Martin, J. F. — Stillwater
McCartney, Vivian M. — Stillwater
Mitchell, L. A. — Stillwater
Mitchell, W. C. — Yale
Perry, D. L. — Cushing
Richardson, P. M. — Cushing
Roberts, R. E. — Stillwater
Sexton, C. E. — Stillwater
Waggoner, R. E. — Stillwater
Wilhite, L. R. — Perkins

PITTSBURG

Barton, V. H. — McAlester
Baum, F. J. — McAlester
Bunn, A. D. — Savanna
Bright, J. B. — Kiowa
Brunson, C. J. — McAlester
Carlock, A. E. — Hartshorne
Chapman. T. S. — McAlester
Crews, J. W. — Atwood
Davis, J. E. — McAlester
Dorrough, Joe — Haileyville
Echols, J. W. — McAlester
George, L. J. — Stuart
Hailey, W. P. — Haileyville
Harris, C. T. — Kiowa
Hudson, W. K. — Hartshorne
Johnston, J. C. — McAlester
Kies, B. B. — No. McAlester
Kilpatrick, G. A. — McAlester
Kuyrkendall, L. C. — McAlester
Lewallen, W. P. — Canadian
McCarley, T. H. — McAlester
Miller, Frank A. — Hartshorne
Munn, J. A. — McAlester
Norris, T. T. — Krebs
Park, J. F. — McAlester
Pearce, C. M. — McAlester
Pemberton, R. K. — McAlester
Ramsay, W. G. — Quinton
Rice, O. W. — McAlester
Sames, W. W. — Hartshorne
Shankle, H. D
U. S. Veterans Hosp., Ft. Harrison, Montana

Shuller, E. H. — McAlester
Wait, W. C. — McAlester
Watson, F. L. — McAlester
Welch, A. J. — McAlester
Williams, C. O. — McAlester
Willour, L. S. — McAlester
Wilson, Herbert A. — McAlester
Wilson, McClellan — McAlester

PONTOTOC

Breco, J. G. — Ada
Brydia, Catherine — Ada
Canada, E. A. — Ada
Castleberry, R. T. — Ada
Craig, J. R. — Ada
Cummings, I. L. — Ada
Dawson, B. B. — Ada
Dean, W. F. — Ada
Forsythe, Grant — Allen
King, R. F. — Ada
Lane, Wilson H. — Ada
Lewis, E. F. — Ada
Lewis, M. L. — Ada
McKeel, Sam — Ada
McNew, M. C. — Ada
Miller, O. H. — Ada
Needham, C. F. — Ada
Ross, S. P. — Ada
Rutledge, J. A. — Ada
Sugg, Alfred R. — Ada
Threlkeld, W. R. — Ada
Webster, M. M. — Ada
Welborn, O. E. — Ada

POTTAWATOMIE

Anderson, Robert M. — Shawnee
Applewhite, G. H. — Shawnee
Baker, McKinzie A. — Shawnee
Ball, W. A. — Wanette
Baxter, Geo. S. — Shawnee
Blount, W. T. — Maud
Brown, R. A. — Prague
Byrum, J. M. — Shawnee
Campbell, Hiram G. — Shawnee
Carson, F. LeRoy — Shawne
Cordell, U. S. — Macomb
Culbertson, Roland R. — Maud
Douglas, R. A. — Asher
Fortson, J. L. — Tecumseh
Gallaher, F. Clinton — Shawnee
Gallaher, W. M. — Shawnee
Gaston, John L. — Shawnee
Gillick, David W. — Shawnee
Hughes, Horton E. — Shawnee
Hughes, John E. — Shawnee
Isvekov, V. G. — Huntsville, Texas
Kaylor, R. C. — McLoud
McAdams-Williams, Alpha — Shawnee
McClendon, J. W. — Earlsboro
McFarling, Alonzo C. — Shawnee
Morrison, H. C. — Maud
Newlin, Frances P. — Shawnee
Norvell, Elijah E., 222½ W. Commerce, Okla. City
Paramore, Chas. F. — Shawnee
Rice, E. Eugene — Shawnee
Rowland, T. D. — Shawnee
Royster, J. H. — Wanette
Sanders, Thos. C. — Shawnee
Scott, John H. — Shawnee
Shivers, Eraine — St. Louis, Okla.
Stevens, Walter S. — Shawnee
Stooksbury, J. M. — Shawnee
Terrell, Ernest P. — Shawnee
Turner, Jas. H. — Cumberland Hosp., New York
Wagner, H. A. — Shawnee
Walker, John Asa — Shawnee
Walker, J. E. — Shawnee
Wright, Herbert L. — Shawnee

PUSHMATAHA

Ball, Ernest — Sulphur
Burnett, J. A. — Waldron, Ark.
Connally, D. W. — Clayton
Huckabay, B. M. — Antlers
Johnson, H. C. — Antlers
Lawson, John S. — Clayton
Patterson, E. S. — Antlers

ROGERS

Anderson, F. A. — Claremore
Arnold, A. M. — Claremore
Bassman, Caroline — Claremore
Beson, C. W. — Claremore
Bushyhead, J. C. — Claremore
Collins, B. F. — Claremore
Hays, W. F. — Claremore
Howard, W. A. — Chelsea
Jennings, K. D. — Chelsea
Mason, W. S. — Claremore
Meloy, R. C. — Claremore
Nelson, Ira — Indian Hospital, Claremore

SEMINOLE

Bates, C. W. — Seminole
Bates, J. A. — Seminole
Black, W. R. — R. F. D. No. 3, Seminole
Briggs, T. H. — Wewoka
Butler, O. C. — Seminole
Chambers, C. S. — Seminole
Davis, John — Seminole
Deaton, A. N. — Wewoka
Geisen, Andrew F. — Konawa
Harber, J. N. — Seminole
Harrison, T. F. — Wewoka
Hampton, K. P. — Seminole
Huddleston, W. T. — Konawa
Kiles, H. A. — Konawa
Knight, W. L. — Wewoka
Long, W. J. — Konawa
Martin, W. S. — Wewoka
McAlister, E. R. — Seminole
Mills, N. W. — Snomac
Mosher, D. D. — Seminole
Pace, L. R. — Seminole
Reeder, H. M. — Konawa
Reynolds, Jas. B. — Seminole
Shaw, D. B. — Seminole
Stephens, A. B. — Seminole
Turlington, M. M. — Seminole
Van Sandt, Guy B. — Wewoka
Van Sandt, M. Morton — Wewoka
Ware, T. H. — Seminole

SEQUOYAH

Bryan, Cecil — Vian
Morrow, J. A. — Sallisaw

STEPHENS

Brewer, J. W. — Marlow
Burnett, B. H. — Duncan
Carmichael, J. B. — Duncan
Chumley, C. P. — Duncan
Garrett, S. S. — County Line
Harrison, C. M. — Comanche
Ivy, W. S. — Duncan
Lindley, C. E. — Duncan
Linzy, J. H. — Comanche
Long, D. — Duncan
McClain, W. Z. — Marlow
McMahan, A. M. — Duncan
Nieweg, J. W. — Duncan
Overton, L. M. — Tecumseh
Patterson, J. L. — Duncan

Pruitt, C. C. ..... Comanche
Richards, C. C. ..... Marlow
Richardson, R. W. ..... Comanche
Russell, R. L. ..... Marlow
Salmon, W. T ..... Duncan
Tabor, G. E. ..... Marlow
Talley, C. N. ..... Marlow
Weedn, A. J. ..... Duncan
Wilbourn, C. E. ..... Loco
Williamson, S. H. ..... Duncan

TEXAS

Hayes, R. B. ..... Guymon
Langston, Wm. J. ..... Guymon
Lee, Daniel S. ..... Guymon
Risen, Wm. J. ..... Hooker
Smith, Morris ..... Guymon
Wilson, C. E. ..... Boise City

TILLMAN

Allen, C. C. ..... Frederick
Arrington, J. E. ..... Frederick
Bacon, O. G. ..... Frederick
Childers, J. E. ..... Tipton
Fisher, R. L. ..... Frederick
McKeller, M. M. ..... Loveland
Osborne, Jr., J. D. ..... Frederick
Reynolds, J. C. ..... Frederick
Spurgeon, T. F. ..... Frederick
Wilson H. H. ..... Frederick
Wilson, R. E. ..... Davidson

TULSA

Allen, V. K. ..... 1001 Medical Arts Building
Allison, T. P. ..... Sand Springs
Ament, C. M. ..... 305 Ritz Building
Anderson, E. S. ..... Sobbian Plaza Apartments
Armstrong, O. C. ..... 915 Medical Arts Building
Atchley, R. Q. ..... 507 Medical Arts Building
Atkins, P. N. ..... 1011 Medical Arts Building
Barry, W. R. ..... 20 N. College
Baum, E. E. ..... 510 Medical Arts Building
Beyer, J. Walter ..... 501 Palace Building
Billington, J. J. ..... 404 Medical Arts Building
Black, H. J. ..... 209 Medical Arts Building
Bolton, J. Fred ..... 211 Medical Arts Building
Bradley, C. E ..... 202 Medical Arts Building
Bradfield, S. J. ..... 607 Medical Arts Building
Branley, B. L. ..... 208 Medical Arts Building
Braswell, J. C. ..... 1109 Medical Arts Building
Brogden, J. C. ..... 708 Mayo Building
Brown, Paul R. ..... 517 Medical Arts Building
Browne, H. S. ..... 616 Medical Arts Building
Brookshire, J. E. ..... 507 Palace Building
Bryan, Jr., W. J. ..... 801 Medical Arts Building
Butcher, J. P. ..... 2428 E. 6th
Calhoun, W. H. ..... 208 Atlas Life Building
Calhoun, C. E. ..... Sand Springs
Callahan, H. W. ..... 902 Medical Arts Building
Campbell, W. M. ..... 1301½ E. 15th
Chalmers, J. S. ..... Sand Springs
Charbonnet, P. N. ..... 206 Medical Arts Building
Childs, H. C. ..... 710 Medical Arts Building
Childs, J. W. ..... 710 Medical Arts Building
Clinton, F. S. ..... 823 Wright Building
Clulow, G. ..... 302 Philcade Building
Cohenour, E. L. ..... 1102 Medical Arts Building
Cook, W. A. ..... 1107 Medical Arts Building
Coulter, T. B. ..... 1011 Medical Arts Building
Cronk, F. Y. ..... 801 Medical Arts Building
Davis, A. H. ..... 604 S. Cincinnati
Davis, B. J. ..... Sand Springs
Davis, T. H. ..... 404 Medical Arts Building
Dean, W. A. ..... 610 Medical Arts Building
Denny, E. R. ..... 809 Medical Arts Building
Dieffenbach, N. J. ..... 221 Castle Building
Dillon, C. A. ..... 209 New Daniels Building
Dunlap, R. W. ..... 808 Medical Arts Building
Dunseth, G. O. ..... 117 W. 4th
Emerson, A. V. ..... 211 Medical Arts Building
Evans, H. J. ..... 202 Medical Arts Building
Farris, H. L. ..... 303 Medical Arts Building
Feehan, W. J. ..... 807 S. Elgin
Flack, F. L. ..... 822 Mid-Continent Building
Flannagan, O. A. ..... 302 Medical Arts Building
Ford, R. B. ..... 404 Medical Arts Building
Franklin, O. ..... Broken Arrow
Fulcher, J. ..... 417 Medical Arts Building
Garabedian, G. ..... 1235 S. Boulder
Garrett, D. L. ..... 604 S. Cincinnati
Geissler, P. C. ..... 2224 S. St. Louis
Gilbert, J. B. ..... 307 Roberts Building
Glass, F. A. ..... 404 Medical Arts Building
Goodman, S. ..... 603 Medical Arts Building
Gorrell, J. F. ..... 610 Medical Arts Building
Graham, H. ..... 1235 S. Boulder
Graff, B. ..... 1702 S. Quannah
Green, Harry ..... 1116 Medical Arts Building
Grosshart, Ross ..... 517 Wright Building
Goddard, R. K. ..... Skiatook
Hall, G. H. ..... 420 McBirney Building
Haralson, C. H. ..... 816 Medical Arts Building
Harris, B. ..... Jenks
Hart, M. O. ..... 708 Medical Arts Building
Hart, M. M. ..... 1855 E. 17th
Hartgraves, T. ..... Morningside Hospital
Haskins, T. M. ..... 336 Richards Building
Hawley, Z. D. ..... 1215 Atlas Life Building
Henderson, F. W. ..... 304 Medical Arts Building
Henley, M. D. ..... 911 Medical Arts Building
Henry, Gifford, ... 801 Medical Arts Building
Hoke, C. C. ..... 901 Petroleum Building
Hooper, J. S. ..... 317 Medical Arts Building
Houser, M. A. ..... 608 Tulsa Trust Building
Huber, W. A. ..... 114 Medical Arts Building
Hudson, D. V. ..... 305 Medical Arts Building
Humphrey, B. H. ..... Sperry
Hutchinson, A. ..... Bixby
Hyatt, E. G. ..... 604 S. Cincinnati
Jackson, L. T. ..... 206½ S. Main
Jones, W. M. ..... 204 Medical Arts Building
Johnson, C. D. ..... 1116 Medical Arts Building
Kemmerly, H. P. ..... 903 Medical Arts Building
Larrabee, W. S. ..... 411 Medical Arts Building
Laws, J. A. ..... Broken Arrow
Lee, J. K. ..... 211 Medical Arts Building
LeMaster, D. W. ..... 902 Medical Arts Building
Lhevine, M. B. ..... 1007 Medical Arts Building
Lowe, J. O. ..... 319 Philcade Building
Lynch, T. J. ..... 319 Philcade Building
MacKinzie, Ian ..... 807 S. Elgin
McKeller, M. ..... 604 S. Cincinnati
Margolin, B. ..... 215 Medical Arts Building
Marshall, J. C. ..... 709 S. Jackson
Mayginnis, P. H. ..... 505 Palace Building
McAnally, W. F. ..... Box 1756, Pittsburg, Pa.
McComb, L. A. ..... 801 Medical Arts Building
McDonald, D. M. ..... 114 E. 6th
McDonald, J. E. ..... 216 Medical Arts Building
McGill, R. A. ..... 1010 Medical Arts Building
McGuire, H. J. ..... 309 Medical Arts Building
McLean, B. W. ..... Jenks
McQuaker, Molly ..... 1607 E. 12th
Miller, G. H. ..... 215 Atlas Life Building
Minor, J. L. ..... 114 E. 6th
Mohrman, S. S. ..... 611 New Daniels Building
Murdock, H. D. ..... 1011 Medical Arts Building
Murray, P. G. ..... 506 Medical Arts Building
Murray, S. ..... 501 Medical Arts Building
Myers, F. C. ..... 102½ E. 3rd
Nelson, F. J. ..... 603 Medical Arts Building
Nelson, F. L. ..... 614 New Daniels Building
Nelson, I. A. ..... St. Johns Hospital

Nelson, M. O. — 307 Medical Arts Building
Nesbitt, E. P. — 917 Medical Arts Building
Nesbitt, P. P. — 917 Medical Arts Building
Norman, G. — 2543 E. Admiral Street
Northrupt, L. C. — 410 McBirney Building
O'Hern, C. D. F. — 501 Medical Arts Building
Osborne, Geo. — 801 Medical Arts Building
Pavy, C. A. — 812 Medical Arts Building
Peden, J. C. — 612 Medical Arts Building
Perry, Hugh — 417 McBirney Building
Perry, John C. — 3330 E. 11th
Pigford, A. W. — 1001 Medical Arts Building
Pigford, R. C. — 1001 Medical Arts Building
Porter, H. H. — 320 Philcade Building
Presson, L. C. — 902 Medical Arts Building
Price, H. P. — 407 Medical Arts Building
Proctor, C. A. — 404 Medical Arts Building
Reese, K. C. — 604 S. Cincinnati
Reynolds, J. L. — 723 Mayo Building
Richey, S. M. — 1304½ W. 17th
Rhodes, R. L. — 509 Medical Arts Building
Roberts, T. R. — 2647 E. 7th
Rodgers, J. W. — 407 Medical Arts Building
Roth, A. W. — 607 Medical Arts Building
Roy, Emile — 904½ S. Main
Ruprecht, H. A. — 604 S. Cincinnati
Rushing, F. E. — 505 Medical Arts Building
Sabin, C. W. — 336 Richards Building
Searle, M. J. — 502 Medical Arts Building
Shepard, R. M. — 306 Medical Arts Building
Shepard, S. C. — 410 Medical Arts Building
Sherwood, R. G. — 208 Masonic Building
Showman, W. A. — 409 Medical Arts Building
Simpson, Carl F. — 301 Medical Arts Building
Sipple, M. E. — 217 Medical Arts Building
Sisler, Wade — 807 S. Elgin
Smith, D. O. — 604 S. Cincinnati
Smith, J. H., 216 Isham Building, Longview, Tex.
Smith, N. R. — 703 Medical Arts Building
Smith, Roy L. — 710 Medical Arts Building
Smith, R. N. — 1017 Medical Arts Building
Smith, R. R. — 403 New Daniels Building
Smith, R. V. — 607 Medical Arts Building
Smith, W. O. — 323 Philcade Building
Springer, M. P. — 604 S. Cincinnati
Stallings, T. W. — 114 W. 4th
Stanley, Mont V. — 509 New Daniels Building
Stemmons, J. M. — Collinsville
Stevenson, James — 616 Medical Arts Building
Stewart, H. B. — 1516 E. 21st
Stuart, L. H. — 316 Roberts Building
Summers, C. S. — 611 New Daniels Building
Trainor, W. J. — 1011 Medical Arts Building
Tucker, I. N. — 702 Medical Arts Building
Underwood, D. J. — 708 Mayo Building
Underwood, F. L. — 1001 Medical Arts Building
Venable, S. C. — 720 Mayo Building
Walker, W. A. — 410 S. Cincinnati
Wall, G. A. — 903 Medical Arts Building
Wallace, J. E. — 914 Medical Arts Building
Wainright, A. G. — McBirney Building
Ward, B. W. — 823 Wright Building
Ward, H. P. — Leonard
White, D. W. — 311 Medical Arts Building
White, N. S. — 416 Medical Arts Building
White, P. C. — 311 Medical Arts Building
Wiley, A. R. — 811 Medical Arts Building
Wilks, F. M. — Collinsville
Witcher, E. K. — 909 Medical Arts Building
Witcher, R. B. — 909 Medical Arts Building
Woods, C. J. — 511 Medical Arts Building
Young, C. W. — Cleveland
Zink, G. W. — Red Fork
Zink, H. F. — 414 Security Building
Zink, R. A. — 414 Security Building

WAGONER

Bates, S. R. — Wagoner
Leonard, John D. — Wagoner
Plunkett, J. H. — Wagoner
Riddle, H. K. — Coweta
Waltrip, J. R. — Coweta

WASHINGTON

Athey, John V. — Bartlesville
Beechwood, Emory E. — Bartlesville
Cannon, James M. — Bartlesville
Chamberlin, Elizabeth M. — Bartlesville
Crawford, Gwen W. — Dewey
Crawford, Horace G. — Bartlesville
Crawford, John E. — Bartlesville
Crawford, Thomas O. — Dewey
Dorsheimer, Geo. V. — Dewey
Etter, Forrest S. — Bartlesville
Green, Otto I. — Bartlesville
Hall, Ulysses, G. — Copan
Hudson, Lawrence D. — Dewey
Kingman, Wm. H. — Bartlesville
*Kiser, Jefferson D. — Bartlesville
LeBlanc, Wm. — Ochelata
Parks, Seth M. — Bartlesville
*Rammell, Wilbur E. — Bartlesville
Rewerts, Fred C. — Bartlesville
Shipman, Wm. H. — Bartlesville
Smith, Joseph G. — Bartlesville
Somerville, Okey S. — Bartlesville
Staver, Benj. F. — Bartlesville
*Tillison, Chas. K. — Ramona
Torrey, John P. — Bartlesville
Vansant, James P. — Dewey
Weber, Henry C. — Bartlesville
Weber, Sherwell G — Bartlesville
Wells, Cephas J. — Bartlesville
Wells, Milo — Bartlesville
Woodring, Geo. F. — Bartlesville

WASHITA

Baker, B. W. — Cordell
Bennett, D. W. — Sentinel
Bungardt, A. H. — Cordell
Freeman, I. S. — Rocky
Harms, J. H. — Cordell
Hawkins, E. W. — Colony
Jones, J. P. — Dill
Neal, A. S. — Cordell
Stoll, A. A. — Foss
Sullivan, C. B. — Colony
Tracy, C. M. — Sentinel
Weaver, E. S. — Cordell
Webber, A. — Bessie

WOODS

Ames, Howard Banks — Alva
Bilby, Geo. N. — Capitol Bldg., Okla. City
Clapper, Ebeneezer P. — Waynoka
Ensor, Daniel Boy — Hopeton
Grantham, Elizabeth A. — Alva
Hale, Arthur E. — Alva
Hall, Ray Lormer — Waynoka
Hammer, John E. — Kiowa, Kansas
Hunt, Isaac S. — Freedom
Meek, Frederick B. — Alva
Rogers, Chas. Lewis — Carmen
Simon, Wm. Ebert — Alva
Smedley, Wm. H. — Capron
Stephenson, Ishmael F. — Alva
Templin, Oscar E. — Alva

*Deceased

WOODWARD

Brace, A. J. Vici
Camp, E. F. ..... Buffalo
Coyne, H. Campbell ..... Supply
Davis, John T. ..... Shattuck
Dawson, D. W. ..... Woodward
Johnson, H. L. ..... Supply
Newman, O. C. ..... Shattuck
Patterson, Fred ..... Woodward
Silverthorn, C. R. ..... Woodward
Taylor, Dow ..... Supply
Triplett, T. Burk ..... Moreland
Williams, C. E. ..... Woodward